

AMERICAN BEE JOURNAL

The Langstroth Gavels

Presented by MRS. F. M. GLESSNER

—TO THE—

National Bee-Keepers' Association
And to the Chicago-Northwestern



Inscription on One Gavel—

NATIONAL BEE-KEEPERS' ASSOCIATION

1905—F. M. G.

Inscription on the Other Gavel—

NORTHWESTERN BEE-KEEPERS' ASSOCIATION

1905—F. M. G.

This Inscription on Both Gavels—

WOOD FROM TREE PLANTED BY

REV. L. L. LANGSTROTH

IN HIS GARDEN IN OXFORD, OHIO.

(See page 594)



American Bee Journal



PUBLISHED WEEKLY BY
GEORGE W. YORK & COMPANY
 334 Dearborn Street, Chicago, Ill.

IMPORTANT NOTICES.

THE SUBSCRIPTION PRICE of this Journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50 cents a year extra for postage. Sample copy free.

THE WRAPPER-LABEL DATE indicates the end of the month to which your subscription is paid. For instance, "dec 6" on your label shows that it is paid to the end of December, 1906.

SUBSCRIPTION RECEIPTS.—We do not send a receipt for money sent us to pay subscription, but change the date on your wrapper-label, which shows that the money has been received and credited.

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14 lines make one inch.
 Nothing less than $\frac{1}{2}$ inch accepted.

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These rates are subject to either time or space discounts, at choice, but not both.

Reading Notices, 25 cents, count line, subject to the above discounts.

Goes to press Monday morning.

National Bee-Keepers' Association

Objects of the Association.

1st.—To promote the interests of its members.
 2d.—To protect and defend its members in their lawful rights.
 3d.—To enforce laws against the adulteration of honey.

Annual Membership Dues, \$1.00.

General Manager and Treasurer—
 N. E. FRANCE, Platteville, Wis.

If more convenient, Dues may be sent to the publishers of the American Bee Journal.

65c for 12 Names For names and P. O. of 12 farmers and 15c stamps taken—we will send for 2 yrs. the Farmer's Call—reg. sub. price 40c a year. F. C. is a wly., 25 years old, 1,300 pages a year. Sample free.
 FARMER'S CALL, Quincy, Ill.

The Summit Reached



Prices of Queens, Italian and Caucasian: Untested in June, \$1 each; dozen, \$9. Tested in June, \$1.25 each; dozen, \$12. Selected Queens of any grade, 25 cents extra.

Prices of Nuclei on application.

The Wood Bee-Hive Company
 LANSING, MICH.

22Etf Please mention the Bee Journal.

Engravings For Sale

We are accumulating quite a stock of engravings that have been used in the American Bee Journal. No doubt many of them could be used again by bee-keepers in their local newspapers, or their stationery, or in other ways. Also, if we can sell some of them it would help us to pay for others that we are constantly having made and using in our columns. If there is any of our engravings that any one would like to have, just let us know and we will quote a very low price, postpaid. Address,

GEORGE W. YORK & CO.

334 Dearborn Street, - CHICAGO, ILL

Marshfield Hives and Sections

kept in stock; none better. Dittmer's Foundation and all kinds of Bee-Keepers' Supplies sold right. Thousands of Shipping-Cases, 24-pound, 13c; Fancy White Basswood, 16 cents. Honey and Beeswax wanted. Send for free list, and save 20 percent on your order.

W. D. SOPER (Route 3) Jackson, Mich.
 28Etf Please mention the Bee Journal.

Please mention Bee Journal when writing Advertisers.

**New Edition of Dr. Miller's
 40 Years Among the Bees**
 (With Appendix Just Added.)

**FREE as a Premium for Sending
 Two New Subscribers**

The book contains 344 pages, bound in handsome cloth, with gold letters and bees, and illustrated with over 100 beautiful original half-tone pictures, taken by Dr. Miller himself.

The first few pages tell how Dr. Miller got into bee keeping. 20 years ago he wrote



a small book, called "A Year Among the Bees." But "Forty Years" shows in minutest detail how he does things with bees and gets large crops of honey.

How to Get a Copy of Dr. Miller's "Forty Years Among the Bees"

It is sent postpaid for \$1.00, or with the Weekly American Bee Journal for one year, both for \$1.80.

Or, any present regular subscriber to the American Bee Journal whose subscription is paid in advance, can have a copy of Dr. Miller's new book *free as a premium* for sending us **Two New Subscribers** to the Bee Journal for one year with \$2.00. This is a magnificent offer, and should be taken advantage of at once. Address all orders to

GEORGE W. YORK & CO.
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NOT IN THE TRUST



**FRICITION TOP CANS
 FOR HONEY AND SYRUP**

Mention Bee Journal when writing.

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We will stamp

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EXTRACTED

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Our prices for 1906 are the lowest to the National Bee-Keepers' Association. Write us.

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Beauty, Purity, Firmness. No Sagging, No Loss.

Twenty-seven Years of Experience. We Guarantee Satisfaction.

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Caponizing is easy—soon learned. Complete outfit with free instructions postpaid \$2.50.

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Capon Book Free.

G. P. Filling & Son,

Philadelphia, Pa.

The Emerson Binder.

This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 75 cents; or we will send it with the Bee Journal for one year—both for only \$1.50. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this “Emerson” no further binding is necessary.

GEORGE W. YORK & CO.,
334 Dearborn Street, CHICAGO, ILL.

If you want the Bee-Book

That covers the whole Apicultural Field more completely than any other published, send \$1.20 to

Prof. A. J. Cook, Claremont, Cal.,

FOR HIS

“Bee-Keeper’s Guide.”

Liberal Discounts to the Trade.

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Queens By Return Mail

Queens from our fine strain of 3-band Italians will not disappoint you; bees are gentle and the best of honey-gatherers. Queens are large and prolific, and every one guaranteed. Unested, 50c, 86 per doz. Tested, \$1 each.

J. W. K. SHAW & CO.

19 Atf LOREAUVILLE, Iberia Co., LA.

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by mail, or in Oak Park,

on forethought, memory, health, accuracy, self-control, concentration, originality and the sources of resourcefulness. 6 trial lessons by mail for \$5.

The Earl Pratt Library Reports
Oak Park (Chicago), Illinois

Local Correspondents Wanted.

Send 4 cents for Outfit.

Mention Bee Journal when writing.



Fire Sale of Bee-Supplies

Come and see the goods before buying, if you can. It will pay you, as you will

Save 25 to 50 Percent

As announced last week, a fire which caused almost a total loss occurred June 20, in the building we then occupied. We are now in our new quarters—191 & 193 Superior St. (3 blocks north and 1 block east of our old location)—where we have the slightly damaged goods that we have sorted out, and also a stock of

New Lewis Goods at Factory Prices

Any bee-keeper living within a reasonable distance of Chicago can make money on any supplies he may need now or later, by coming to Chicago and looking over the goods that we selected out after the fire. Better order quick if you want any of the goods we are selling at 25 to 50 percent reduction.

Send for Free Catalog of New Goods. Address,

H. M. ARND, Proprietor, York Honey and Bee-Supply Co. (Not Inc.)
Long Distance Telephone, North 1559. 191 AND 193 SUPERIOR ST. CHICAGO, ILL.

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Swarming Done Away With

The illustration shows one of the A. K. Ferris hives under process of manipulation. Every bee-keeper will be interested in reading about these hives arranged according to the Ferris' system for the Prevention of Swarming for Comb Honey Production.

The Non-Swarming articles by Mr. Ferris and Mr. G. M. Doolittle are proving exceedingly interesting. This great series is fully illustrated and will be continued throughout the remaining issues of 1906.

Among our other regular contributors are Mr. J. A. Green, Dr. C. C. Miller, E. W. Alexander, and many other bee-keepers of note.

No bee-keeper who will take time to look through one number of *Gleanings in Bee Culture* can satisfy himself that he does not need this "Journal of Profit."

We make it easy for you to give *Gleanings* a thorough trial; here's the offer:

A six month's trial trip, 25c.

If you will send in your remittance before the back numbers from April 1st, in which the introductory articles on the Non-Swarming series have appeared, are all gone, we will include these free of charge.

Gleanings in Bee-Culture MEDINA, OHIO

SECTIONS

Sections are in great demand at this season of the year. We are running full capacity, but can hardly supply the call for No. 1 Sections of all sizes.

Place orders at once, or you are apt to be disappointed. We have a very large supply of No. 2 grade of Sections. These Sections are as good as some offer for No. 1. Not being snow-white—but having a tinge of cream grades them No. 2. Give this grade a trial this season. It will cost you 25c a thousand less.

ALEXANDER FEEDER

We are prepared to furnish the Alexander Feeder. We make them 19 inches long so they may be used with either an 8 or 10 frame hive. With a 10-frame hive they will project 3 inches beyond the hive for feeding, and the block may be laid crosswise of the feeder or be cut off as preferred. With the 8-frame hive the feeder projects 5 inches and the block lies lengthwise. We soak the feeders in oil to prevent the feed from soaking in. Price, finished, including block, 25c each; 10 for \$2; 50 for \$9.

GERMAN BEE-BRUSH

Some months ago Mr. R. F. Holtermann called our attention to a bee-brush which he received from Germany, made of genuine bristle or horsehair. He had used one a whole season, washing it out often, and it appeared to be as good at the end of the season as at the beginning. He considered it so far ahead of anything he had ever seen or used that he wanted no other. We concluded if it was so good for him it must be equally good for others. We are now provided with a stock which we offer at 25 cents each; by mail, 30 cents. The bristles are black, and about 2 inches long, extending 8 inches on the handle. Made of white hair it would cost 5 cents more.

BRANCHES

Medina, New York City, Chicago, Ill. Philadelphia, Pa. Washington, D.C. St. Paul, Minn. Syracuse, N.Y. Mechanic Falls, Ohio. Box 1037 144 E. Erie. 10 Vine St. 1100 Md. Ave. 1024 Miss. St. 1631 W. Gen. St. Maine.

**THE A. I. ROOT CO.
Medina, Ohio.**



(Entered at the Post-Office at Chicago as Second-Class Mail-Matter.)
Published Weekly at \$1.00 a Year, by George W. York & Co., 334 Dearborn Street.

GEORGE W. YORK, Editor

CHICAGO, ILL., JULY 12, 1906

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Prevention of Swarming With Extracted Honey

In so complicated an affair as working to prevent the swarming of colonies, it is not strange that there should be differences of opinion as to the emphasis to be put upon different items. The following note is an illustration:

EDITOR YORK:—In the instructive article of G. M. Doolittle, page 555, has he not omitted the most important item in the prevention of swarming when running for extracted honey? Is not the great amount of ventilation that may obtain with extracted-honey colonies of more importance than all the other items combined?

HONEY-MAN.

It is the general belief—in which Mr. Doolittle shares—that it is easier to prevent swarming when running for extracted than when running for comb honey, the general explanation for which is that more abundant room may be given both in the brood-chamber and the surplus apartment. It is also probably generally believed that more ventilation may be given without interfering with storing in the case of extracted-honey colonies than in that of comb-honey colonies. But is our knowledge with regard to this very full and exact?

If a large opening be made in the upper part of a surplus apartment, we know that less work will be done by the bees near such opening. In the case of comb honey the result is bad, plainly showing in unfinished sections at that point. In the case of extracted honey we say it merely means that the honey is stored farther away; unused extracting combs are not as bad as are unfinished sections. But it is certain that there is no real loss of honey in the case of extracting combs if ventilation be excessive?

Whatever may be the case, it is claimed by some that there will be little or no swarming with stories enough and large ventilation at the bottom, between each two stories, and under the cover. Who can tell us from actual trial whether this is reliable?

Fairness to Advertisers and Subscribers

It is the earnest desire of the American Bee Journal to treat both advertisers and subscribers with all the fairness possible, as was urged on page 442, but our correspondent "Canada" seems not to see it exactly in that light. He writes:

The first part of the advertisement referred to on page 442, certainly leads to the impression that the advertiser was a beginner in queen-rearing, and now (May 24) you ask, What is to hinder the queens being all right? I answer, to any but the veriest novice the inference would be that when that advertiser bought the black bees there were other black bees in the neighborhood, and he was liable to have some of his queens mated to black drones. I have a queen pur-

chased late last fall, and her drones are so black as to be unsatisfactory, especially when compared with some (supposed to be) Doolittle stock. A friend has been buying Italian queens 2 years or more, and has very few true Italians yet. Like Dr. Miller, he will have to Italianize the whole neighborhood before he can cease to breed hybrids.

CANADA.

It is hardly worth while to discuss whether others would understand that a man was a beginner in queen-rearing because he advertised reduced prices on bees he had bought and Italianized, as the probability is that all other queen-rearers have been guilty of the same charge when first entering the business. The drift of the objection seems to be the danger that queens might be sold that were impurely mated by black drones in the neighborhood. Passing by the possibility that the black bees bought might have been from some distance, one may ask whether "Canada" demands that no one shall offer queens for sale unless he is in a locality entirely free from all but pure drones. If that be the view on which he bases his objection—and if not he will kindly tell us more specifically what his objection is—it may be as well to say at once that the probability is that the advertiser in question does not live in a locality where only pure Italian drones are to be found; and to add also that neither does any other unless he lives on some island.

The material difference in price between tested and untested queens comes from the fact that there is no positive proof that a virgin has not met an impure drone, until her worker offspring emerges. If the queen-rearer were positively certain that none but pure drones were in reach of his virgin queens, an untested queen would be just as good as a tested one, and there would be no need to distinguish in price.

If there be no other objection to the advertisement in question than that it might lead "Canada" to think the advertiser a beginner, and that impure drones were in his neighborhood, the American Bee Journal can hardly feel that it has been wanting in consideration for the interests of its subscribers in accepting the said advertisement.

Legal Rights to Bee-Territory in Australia

The business of bee-keeping is differentiated from almost all others by the fact that no man can hold an undisputed title to a given bee-range unless he holds absolute possession of thousands of acres of land. There is a somewhat general feeling that priority of location should be respected, but all are not agreed upon it, some holding that any man has a moral as well as a legal right to plant an apiary upon any rood of land he can buy or rent, no matter if the territory is already fully occupied.

One man vigorously advocated, some years ago, the idea that there should be such legislation as would give undisputed possession of a given territory, so that a bee-keeper might feel just as secure against intrusion as the farmer who holds his ancestral acres. But the idea was not popular, and he was unsupported, it seeming to the general mind that no just legislation could give one man full possession of a piece of land for farming purposes while another man should own the nectar upon it.

Exactly that sort of legislation, however, is what our bee-keeping friends on the other side of the globe have ob-

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tained. Before giving particulars, as obtained from the Australian Bee-Bulletin, it may be well to explain that what are called "Crown lands" seem to be the same as we call government lands. A bee-farm license would seem to give entire control of the ground, not to exceed 10 acres; while a bee-range gives control of the nectar within a radius of one mile. Here are the particulars:

Regulations for the conduct of bee-farms under the provisions of the Victorian Land Amendment Bill passed last session, have been approved by the Minister for Lands (Mr. Murray). These farms consist for the most part of excisions from areas held under lease from the Crown, and the regulations are, therefore, in the main, directed to defining the rights of the lessee and the bee-farmer. The license is issued for a period of 7 years, and no right of renewal is guaranteed. The bee-farmer may make improvements, but he does so at his own risk, and is not entitled to compensation. Stringent provisions are made against the careless use of fire, and the licensee is not allowed to keep a dog. The licensee is given the right of access to his holding over the original lessee's property, but he is prohibited under penalties from leaving gates open after passing through them. No individual, company, or corporation is allowed to have more than 3 bee-farms or bee-ranges. The aggregate area of the bee-farm licenses must not exceed 10 acres, whilst a bee-range consists of all the land within one mile of the apiary site. The licensee has, however, no right of entry to the 1-mile radius, which refers only to the area over which the bees could have the use of the trees.

Owners of apiaries on private lands adjoining Crown lands may apply for bee-range licenses, the rent of which is fixed by the Act at a halfpenny [about 1 cent] per acre within the mile radius. Areas included in the licenses can be transferred or sublet only on the approval of the Minister on a payment of a fee of \$2.42. Speaking generally, the rent for a bee-farm license will be 25 cents per acre. All applications lodged on or before March 31 will be deemed to have been simultaneously made. Forms of application will be available at the Lands Department. Applicants are requested to furnish full particulars of the site in respect to which the application is made. Where there is no opposition permits will be given for immediate occupation. Licensees are not allowed to cultivate, except with the consent in writing of the Minister.

The Regulations Governing the Bee-Sections of the New Land Act as now published, although they may not be exactly what we desired, are a compromise of the demands of bee-keepers and the contentions of occupiers of Crown Lands, and are the best this Association could obtain after a protracted struggle against opposing influences.

Will members please note that all applications for bee-sites made up to March 31 next will be considered as made simultaneously. After that date priority will go with date when application was received. In undisputed cases permits for immediate occupation will be issued, and applicants may, therefore, avoid much delay by agreeing first amongst themselves.

I would also point out that although the charge for a Bee-Range license is $\frac{1}{2}$ d. [about 1 cent] per acre, it is not obligatory for the holder of a Bee-Farm license to take out a Bee-Range license if he cares to take the risk of getting a competitor for his pasture within 2 miles of his apiary. On the other hand, an apiarist on private land may take out a Bee-Range license, securing to him the exclusive use for a distance of a mile of the bee-pasture on adjoining Crown lands, although he, himself, does not require a Bee-Farm license. The number of sites and Bee-Range licenses any one person may hold is 3. The amount payable as a royalty for a radius of 1 mile at $\frac{1}{2}$ d. per acre is about \$20.00.

R. BEUHNE.



The Langstroth Gavels shown on the first page of this number were engraved from the ones presented to the National and Chicago-Northwestern Bee-Keepers' Associations by Mrs. F. M. Glessner, as mentioned on page 599. This was one of the most interesting features of the National Convention. Mrs. Glessner deserves to be congratulated on the happy results of her appropriate thought in securing and presenting the gavels. She has a nice little apiary at her summer home in New Hampshire, where she goes from Chicago early each spring and returns in the fall. She cares for the bees herself, and has been quite successful with them. She once told us that she thought that all nice white comb honey should bring at least 50 cents per pound in a retail way! Of course, very few people could afford to pay that price, but it serves to show how enthusiastic she is in bee-keeping, and how much she appreciates honey.

All who were present at the convention when the gavels were presented by Dr. Miller seemed to be greatly pleased with the whole event. As they were passed around afterward and examined by various bee-keepers, they seemed to be unable to agree upon the kind of wood used in making the gavels. Prof. McFarland, who was instrumental in securing the wood, explains the matter quite fully in the following, which has kindly been sent to us for publication:

DR. C. C. MILLER, Marengo, Ill.

Dear Sir:—Allow me to do a little more than merely giving the name of the wood of which those gavels were made. Here in Ohio the tree is called "Linden." When the forests in Ohio were far more extensive than they are now, I have seen Linden trees from 3 to 4 feet in diameter. The tree is indigenous in Ohio. It bears a blossom which bees greatly like; and the honey gathered from these blossoms was the kind which Mr. Langstroth thought to be most delicate of all. When Mr. L. came to Oxford, in 1859, more than half the original forests were gone. We lived on the border of the town—his place outside the corporation, and extending about 400 feet along the line. My place was just within the town limits—and extending very nearly a like distance—a street 4 rods wide separating our lands. On the side of the street bordering on his land there were no shade-trees. Our houses were on different sides of the street, and nearly opposite to each other, 60 or 70 feet from the border of the street. On my side, I had a row of 8 or 10 maple-trees. About 1863 or 1864, Mr. L. set out 8 or 10 Linden trees—say 2 inches in diameter at the time—for "beepasture" in after years. I was with him when the work was done. With a sharp knife he cut off all the broken or injured roots of the saplings, cutting on the underside of the root. He said it would greatly aid the tree in getting a good start to grow. The trees to day are about 10 inches in diameter. When I went to get a limb of which to make the gavels, the lower limbs were too high for me to reach. Just then my neighbor, Mr. Miller, came along in a wagon, and I asked him to drive under the limbs, that I might be able to reach them. He did so, and I cut off a limb from a tree which I had helped Mr. L. plant nearly 40 years before. I took the tree which stood most directly in front of his house.

I thought a little account like this might be more acceptable than the bare name of the wood. I knew Mr. L. from 1859 to the day of his death—nearly 40 years afterwards. He was a graduate of Yale, and was tutor of Latin in that college 4 years, while Loomis was tutor in mathematics. Loomis wrote the best series of mathematical textbooks I ever saw—I used them for more than 30 years.

I am greatly gratified to know the spirit in which the gavels were received by the people. Mr. L. was as noble a man as I ever saw. He had only one son, who, at the beginning of the Civil War, was about 21 years of age. In 1862 the students here formed a company of soldiers and elected me as captain. Young Langstroth belonged to the company. The first summer was spent in West Virginia. In 1863 the regiment was reorganized. Langstroth was promoted to a first lieutenancy, and took part in the East Tennessee campaign, under Burnside. Five or six years after the war he died from pulmonary trouble. I will send you, in a day or two, a small pamphlet concerning one part of that campaign. From the fact that Mr. L.'s son was in that expedition, I thought you might like to read the account.

Very cordially yours, R. W. McFARLAND.
Oxford, Ohio, Jan. 20, 1906.

There is an additional appropriateness in that the wood of which the gavels are made is linden, or basswood—not only a favorite of Father Langstroth, but also often a fine nectar-yielder. Surely these gavels will be prized by the fortunate recipients.

Bees Tearing Pasteboard.—Dr. G. Bohrer, of Kansas, received from Wm. Cutter, a fruit-grower in the same State, two pieces of pasteboard torn down by bees, and the question, "If a bee can not break through a grape-skin, how did it do this?" To this, Dr. Bohrer replied as follows:

MR. CUTTER:—Yours containing pasteboard picked and lacerated by honey-bees came duly to hand. In reply I will say that the pasteboard is not cut at all. It is, as you are aware, felt goods. The bees began at the edges of the pasteboard and picked it apart. Fruit-skins are of an entirely different texture, and can not by any possible means be picked apart as the pasteboard you sent me has been. The jaws of the honey-bee are not made for cutting, but are made to press wax, and weld and shape it into honey-comb. The yellow-jacket, wasp and hornet have sharp jaws made for cutting, and they can cut through the rind of grapes and other fruits.

Please put the jaws of a honey-bee under a powerful magnifying glass, and you will see that they are simply paddle-shaped, and when closed fit neatly together. They can not cut anything, but they can pick any felt or fuzzy bodies to fragments.

G. BOHRER.

The pasteboard pieces seem to show that they were parts of a pasteboard separator, as they were somewhat propolized. But this is only our guess.

Indiana Fair and Apiarian Display.—We have received the following from Walter S. Pouder, of Indianapolis:

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lis, in reference to the next Indiana State Fair and its apian display:

The Indiana State Fair, which begins Sept. 10, 1906, has offered \$250 in premiums in the bee-department this year. Competition is open to the world, and no restrictions required. For this liberal offer much credit is due Mr. Mason J. Niblack, of Vincennes, a member of the State Board of Agriculture. Mr. Niblack will have personal charge of this department, and as he is an enthusiastic bee-keeper, this means that exhibitors will have fair treatment, and that efficient judges will be appointed. Bee-keepers from everywhere are invited to come and bring the best they can produce. Here is the list of premiums in full:

	Premiums—1st	2d	3d
Display of comb honey, quality, quantity and manner of putting up for market considered.....	\$25	\$15	\$8
Display of extracted honey, quality, quantity and manner of putting up for market considered.....	25	15	8
Display of beeswax, quantity and quality to be considered.....	10	8	6
Honey-vinegar, not less than 1 gallon, in glass.....	5	3	2
One-frame observatory hive of Italian bees, showing queen, workers and brood in all stages.....	10	8	6
One-frame observatory hive of foreign bees, other than Italians, showing queen, workers, and brood in all stages.....	10	8	6
Display of bee-supplies.....	20	10	5
Best general display of honey, beeswax, supplies, and other material pertaining to the bee-industry.....	20	10	5

Any one wanting a premium-list can get it free by addressing Chas. Downing, Secretary, State Board of Agriculture, Indianapolis, Ind.

WALTER S. PODER.

We congratulate the bee-keepers of Indiana on their fine State Fair Premium-list. Surely they should put up a great display, and show themselves worthy of the generous treatment accorded them by their State Board of Agriculture.



The Best Size of Honey-Section

BY L. V. RICKETTS.

IT seems that Mr. T. K. Massie, on page 370, has gotten the wrong impression of my meaning in that part of my article on page 252 referring to "good company." Of course, I consider Mr. Massie and Dr. Bohrer, as well as all the other writers in the "Old Reliable," as good company. Yet I suppose Mr. Massie will allow me to "go it alone" (as far as Mr. Hasty is concerned) on the subject of full-weight sections; and especially after Mr. Hasty has said that he could not join my procession.

Mr. Massie says that he indorses all that has been said against the use of lighter weight sections. "But when Mr. Ricketts proposes to adopt a section $1\frac{1}{8}$ inches thick, I emphatically object. There are too many objections to combs over $1\frac{1}{8}$ inches thick, to adopt the thick ones he proposes." Mr. Massie proposes a section $4\frac{1}{4} \times 5 \times 1\frac{1}{8}$ inches, saying that such a section will hold (average) a full pound.

Now, in the article referred to by Mr. Massie, I mentioned only the $1\frac{1}{8}$ bee-way sections. I have proven (as stated in a previous article) that in this part of the country $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ bee-way sections, when fairly well filled with separated honey, weigh an average of only 14 2-3 ounces. The heaviest section of the ones used in arriving at the average weight, was a $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$, two-bee-way section, well and evenly filled with separated honey, the comb averaging $1\frac{1}{8}$ inches thick and weighing 16 ounces, wood in the section included. A comb of separated honey, $1\frac{1}{8}$ inches thick, I believe is as thick as we are likely ever to get it: a $1\frac{1}{8}$ inch bee-way section; and the average thickness, I believe, from repeated observations, will not be more than $1\frac{1}{8}$ inches. A comb of this thickness in a $4\frac{1}{4} \times 4\frac{1}{4}$ section will not weigh 16 ounces.

Now, if we should adopt a bee-way section $4\frac{1}{4} \times 5 \times 1\frac{1}{8}$ inches, as Mr. Massie proposes, the average thickness of the separated combs would likely be not more than $\frac{7}{8}$ inch. This I consider to be too thin for general satisfaction—too much comb-foundation and capping, and not enough real

honey. I think there is little danger of getting many combs thicker than $1\frac{1}{8}$ inches built in $1\frac{1}{8}$ -inch sections with separators.

As a farther proof that the $1\frac{1}{8}$ inch section is not generally considered too thick, I will cite Mr. Root when called upon to speak on "Size of Sections." He said, "At present in the United States, sections sell in this order: The $1\frac{1}{8}$ bee-way $4\frac{1}{4} \times 4\frac{1}{4}$ sections sell best." (Page 340.) Mr. Root is, of course, good authority on this subject.

If Mr. Massie had proposed a $4\frac{1}{4} \times 5 \times 1\frac{1}{8}$ inches, bee-way sections, instead of one only $1\frac{1}{8}$ inches thick, I might have joined his procession, as the $4\frac{1}{4} \times 5 \times 1\frac{1}{8}$ section was carefully considered by me at the time that I proposed the $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ section. The $1\frac{1}{8}$ inch bee-way section is too thin for me.

The reasons for my proposing the $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ inch section in preference to all others, are given on page 695 (1905), and I have learned no reason, as yet, to make any change. A section $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ inches is a good one, and, like the $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ inches, will weigh (average) 16 ounces when filled with separated honey. Either of the two last-named sections is an improvement on the sections in general use at present, and if put into general use would increase the sale and consumption of comb honey more than anything else beekeepers can do.

PULLMAN, WASH.

Institutes and Conventions as Educators

BY PROF. A. J. COOK.

TO-day education counts for more than ever before. "Educated fool," "book farmer," and other such phrases are more and more going into disuse. The reason is plain. Educated nations, no less than educated people, are forging to the front. "Little Japan" forced terms from "Big Russia" because she had laid firm hold of this best weapon in warfare as in peaceful employ—Education. The same good friend won the easy victory in the Franco-Prussian war, and has pushed Germany away to the front in all good lines of progress. General education, and ready opportunity to acquire the same, even for the poorest boy or girl, has more than aught else made our own country the best and grandest of the world. The same is true of men.

Carnegie once doubted the value of education in practical affairs. To-day he is its most able advocate and patron. He has seen education march to the head in the shop. Educated farmers in California—everywhere—are distancing those without culture. Even in our bee-keeping ranks, the Langstroths, Hetheringtons, Taylors, Hutchinsons, Hedrons, Doolittles, Millers, Hatchets, etc., are educated men. True, not college-trained, all of them, but the college is not a necessary step to education, though a most helpful one. Horace Greeley was never in college, but who would say he was not an educated man? He would be first to say that the modern college would have made the steps much shorter and vastly easier.

UNIVERSITY EXTENSION.

Today one of the efficient agents in educating all—and especially the masses—is the Institute, Convention, etc. The college in every State goes to those who can not come to it. In agriculture this is the "Farmer's Institute." Our conventions, associations and clubs are of the same ilk. They all bring the college and scientific ways and methods to the people. So it is one of the glories of today, that the college is not the exclusive benefactor of those who come to its lecture-halls, but it reaches with its equipment and facilities to all classes.

THE FARMER'S INSTITUTE.

As one who has been actively engaged in institute work ever since Michigan inaugurated this *regular system* of education, in 1875, I have watched its growth and power with growing appreciation and pleasure. The farmer's institutes of the United States have done a marvelous work for our farmers. Through their teaching, methods of work and practice have been revolutionized in more than one State, and often to the tremendous gain of the farmers financially.

As every institute would have "Bees" and "Honey Production" on its program, so every bee-keeper should be interested in these meetings.

American Bee Journal



PUBLISHED WEEKLY BY
GEORGE W. YORK & COMPANY
334 Dearborn Street, Chicago, Ill.

IMPORTANT NOTICES.

THE SUBSCRIPTION PRICE of this Journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50 cents a year extra for postage. Sample copy free.

THE WRAPPER-LABEL DATE indicates the end of the month to which your subscription is paid. For instance, "dec 06" on your label shows that it is paid to the end of December, 1906.

SUBSCRIPTION RECEIPTS.—We do not send a receipt for money sent us to pay subscription, but change the date on your wrapper-label, which shows that the money has been received and credited.

Advertising Rate, per Agate Line, 10¢.

14 lines make one inch.
Nothing less than $\frac{1}{2}$ inch accepted.

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26 " 20 "	1000 " 20 "
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These rates are subject to either time or space discounts, at choice, but not both.

Reading Notices, 25 cents, count line, subject to the above discounts.

Go to press Monday morning.

National Bee-Keepers' Association

Objects of the Association.

1st.—To promote the interests of its members.
2d.—To protect and defend its members in their lawful rights.
3d.—To enforce laws against the adulteration of honey.

Annual Membership Dues, \$1.00.

General Manager and Treasurer—
N. E. FRANCE, Platteville, Wis.

If more convenient, Dues may be sent to the publishers of the American Bee Journal.

65c for 12 Names For names and P. O. of 12 farmers and 15c—stamps taken—we will send for 2 yrs. the Farmer's Call—reg. sub. price 40c a year. F. C. is a wky., 25 years old, 1,300 pages a year. Sample free.

FARMER'S CALL, Quincy, Ill.

The Summit Reached



Prices of Queens, Italian and Caucasian: Untested in June, \$1 each; dozen, \$9. Tested in June, \$1.25 each; dozen, \$12. Selected Queens of any grade, 25 cents extra.

Prices of Nuclei on application.

The Wood Bee-Hive Company
LANSING, MICH.

22Etf Please mention the Bee Journal.

Engravings For Sale

We are accumulating quite a stock of engravings that have been used in the American Bee Journal. No doubt many of them could be used again by bee-keepers in their local newspapers, on their stationery, or in other ways. Also, if we can sell some of them it would help us to pay for others that we are constantly having made and using in our columns. If there is any of our engravings that any one would like to have, just let us know and we will quote a very low price, postpaid. Address,

GEORGE W. YORK & CO.
334 Dearborn Street, - CHICAGO, ILL

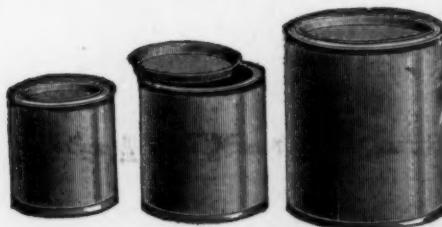
Marshfield Hives and Sections

kept in stock; none better. Dittmer's Foundation and all kinds of Bee-Keepers' Supplies sold right. Thousands of Shipping-Cases, 24-pound, 13c; Fancy White Basswood, 16 cents. Honey and Beeswax wanted. Send for free list, and save 20 percent on your order.

W. D. SOPER (Route 3) Jackson, Mich.
28Etf Please mention the Bee Journal.

Please mention Bee Journal when writing Advertisers.

NOT IN THE TRUST



**FRICITION TOP CANS
FOR HONEY AND SYRUP**

Mention Bee Journal when writing.

**New Edition of Dr. Miller's
40 Years Among the Bees**
(With Appendix Just Added.)

**FREE as a Premium for Sending
Two New Subscribers**

The book contains 344 pages, bound in handsome cloth, with gold letters and bees, and illustrated with over 100 beautiful original half-tone pictures, taken by Dr. Miller himself.

The first few pages tell how Dr. Miller got into bee keeping. 20 years ago he wrote



a small book, called "A Year Among the Bees." But "Forty Years" shows in minutest detail how he does things with bees and gets large crops of honey.

How to Get a Copy of Dr. Miller's "Forty Years Among the Bees"

It is sent postpaid for \$1.00, or with the Weekly American Bee Journal for one year, both for \$1.80.

Or, any present regular subscriber to the American Bee Journal whose subscription is paid in advance, can have a copy of Dr. Miller's new book *free as a premium* for sending us **Two New Subscribers** to the Bee Journal for one year with \$2.00. This is a magnificent offer, and should be taken advantage of at once. Address all orders to

GEORGE W. YORK & CO.
334 DEARBORN STREET. - CHICAGO, ILL.

We will stamp
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EXTRACTED
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Our prices for 1906 are
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Caponizing is easy—soon learned. Complete outfit with free instructions postpaid \$2.50.
Gape Worm Extractor 25c
Poultry Marker.....25c
French Killing Knife 50c
Capon Book Free.

G. P. Pilling & Son, Philadelphia, Pa.

The Emerson Binder.

This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 75 cents; or we will send it with the Bee Journal for one year—both for only \$1.50. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this “Emerson” no further binding is necessary.

GEORGE W. YORK & CO.,
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If you want the Bee-Book

That covers the whole Apicultural Field more completely than any other published, send \$1.20 to

Prof. A. J. Cook, Claremont, Cal.,

FOR HIS

“Bee-Keeper’s Guide.”

Liberal Discounts to the Trade.
Mention Bee Journal when writing.

Queens By Return Mail

Queens from our fine strain of 3-band Italians will not disappoint you; bees are gentle and the best of honey-gatherers. Queens are large and prolific, and every one guaranteed. Untested, 50c, \$6 per doz. Tested, \$1 each.

J. W. K. SHAW & CO.

19Atf LOREAUVILLE, Iberia Co., LA.
Mention Bee Journal when writing.

Private Lessons

by mail, or in Oak Park, on forethought, memory, health, accuracy, self-control, concentration, originality and the sources of resourcefulness. 6 trial lessons by mail for \$5.

The Earl Pratt Library Reports
Oak Park (Chicago), Illinois

Local Correspondents Wanted.
Send 4 cents for Outfit.
Mention Bee Journal when writing.

Fire Sale of Bee-Supplies

Come and see the goods before buying, if you can. It will pay you, as you will.

Save 25 to 50 Percent

As announced last week, a fire which caused almost a total loss occurred June 20, in the building we then occupied. We are now in our new quarters—191 & 193 Superior St. (3 blocks north and 1 block east of our old location)—where we have the slightly damaged goods that we have sorted out, and also a stock of

New Lewis Goods at Factory Prices

Any bee-keeper living within a reasonable distance of Chicago can make money on any supplies he may need now or later, by coming to Chicago and looking over the goods that we selected out after the fire. Better order quick if you want any of the goods we are selling at 25 to 50 percent reduction.

Send for Free Catalog of New Goods. Address,

H. M. ARND, Proprietor, York Honey and Bee-Supply Co. (Not Inc.)

Long Distance Telephone, North 1559. 191 AND 193 SUPERIOR ST. CHICAGO, ILL.

American Bee Journal



Swarming Done Away With

The illustration shows one of the A. K. Ferris hives under process of manipulation. Every bee-keeper will be interested in reading about these hives arranged according to the Ferris' system for the Prevention of Swarming for Comb Honey Production.

The Non-Swarming articles by Mr. Ferris and Mr. G. M. Doolittle are proving exceedingly interesting. This great series is fully illustrated and will be continued throughout the remaining issues of 1906.

Among our other regular contributors are Mr. J. A. Green, Dr. C. C. Miller, E. W. Alexander, and many other bee-keepers of note.

No bee-keeper who will take time to look through one number of *Gleanings in Bee Culture* can satisfy himself that he does not need this "Journal of Profit."

We make it easy for you to give *Gleanings* a thorough trial; here's the offer:

A six month's trial trip, 25c.

If you will send in your remittance before the back numbers from April 1st, in which the introductory articles on the Non-Swarming series have appeared, are all gone, we will include these free of charge.

Gleanings in Bee-Culture MEDINA, OHIO

SECTIONS

Sections are in great demand at this season of the year. We are running full capacity, but can hardly supply the call for No. 1 Sections of all sizes.

Place orders at once, or you are apt to be disappointed. We have a very large supply of No. 2 grade of Sections. These Sections are as good as some offer for No. 1. Not being snow-white—but having a tinge of cream grades them No. 2. Give this grade a trial this season. It will cost you 25c a thousand less.

ALEXANDER FEEDER

We are prepared to furnish the Alexander Feeder. We make them 19 inches long so they may be used with either an 8 or 10 frame hive. With a 10-frame hive they will project 3 inches beyond the hive for feeding, and the block may be laid crosswise of the feeder or be cut off as preferred. With the 8-frame hive the feeder projects 5 inches and the block lies lengthwise. We soak the feeders in oil to prevent the feed from soaking in. Price, finished, including block, 25c each; 10 for \$2; 50 for \$9.

GERMAN BEE-BRUSH

Some months ago Mr. R. F. Holtermann called our attention to a bee-brush which he received from Germany, made of genuine bristle or horsehair. He had used one a whole season, washing it out often, and it appeared to be as good at the end of the season as at the beginning. He considered it so far ahead of anything he had ever seen or used that he wanted no other. We concluded if it was so good for him it must be equally good for others. We are now provided with a stock which we offer at 25 cents each; by mail, 30 cents. The bristles are black, and about 2 inches long, extending 8 inches on the handle. Made of white hair it would cost 5 cents more.

BRANCHES

Medina, New York City, Chicago, Ill. Philadelphia, Pa. Washington, D.C. St. Paul, Minn. Syracuse, N.Y. Mechanic Falls, Ohio. Box 1037 144 E. Erie. 10 Vine St. 1100 Md. Ave. 1024 Miss. St. 1631 W. Gen. St. Maine.

**THE A. I. ROOT CO.
Medina, Ohio.**



(Entered at the Post-Office at Chicago as Second-Class Mail-Matter.)

Published Weekly at \$1.00 a Year, by George W. York & Co., 334 Dearborn Street.

GEORGE W. YORK, Editor

CHICAGO, ILL., JULY 12, 1906

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Prevention of Swarming With Extracted Honey

In so complicated an affair as working to prevent the swarming of colonies, it is not strange that there should be differences of opinion as to the emphasis to be put upon different items. The following note is an illustration:

EDITOR YORK:—In the instructive article of G. M. Doolittle, page 555, has he not omitted the most important item in the prevention of swarming when running for extracted honey? Is not the great amount of ventilation that may obtain with extracted-honey colonies of more importance than all the other items combined?

HONEY-MAN.

It is the general belief—in which Mr. Doolittle shares—that it is easier to prevent swarming when running for extracted than when running for comb honey, the general explanation for which is that more abundant room may be given both in the brood-chamber and the surplus apartment. It is also probably generally believed that more ventilation may be given without interfering with storing in the case of extracted-honey colonies than in that of comb-honey colonies. But is our knowledge with regard to this very full and exact?

If a large opening be made in the upper part of a surplus apartment, we know that less work will be done by the bees near such opening. In the case of comb honey the result is bad, plainly showing in unfinished sections at that point. In the case of extracted honey we say it merely means that the honey is stored farther away; unused extracting combs are not as bad as are unfinished sections. But it is certain that there is no real loss of honey in the case of extracting combs if ventilation be excessive?

Whatever may be the case, it is claimed by some that there will be little or no swarming with stories enough and large ventilation at the bottom, between each two stories, and under the cover. Who can tell us from actual trial whether this is reliable?

Fairness to Advertisers and Subscribers

It is the earnest desire of the American Bee Journal to treat both advertisers and subscribers with all the fairness possible, as was urged on page 442, but our correspondent "Canada" seems not to see it exactly in that light. He writes:

The first part of the advertisement referred to on page 442, certainly leads to the impression that the advertiser was a beginner in queen-rearing, and now (May 24) you ask, What is to hinder the queens being all right? I answer, to any but the veriest novice the inference would be that when that advertiser bought the black bees there were other black bees in the neighborhood, and he was liable to have some of his queens mated to black drones. I have a queen pur-

chased late last fall, and her drones are so black as to be unsatisfactory, especially when compared with some (supposed to be) Doolittle stock. A friend has been buying Italian queens 2 years or more, and has very few true Italians yet. Like Dr. Miller, he will have to Italianize the whole neighborhood before he can cease to breed hybrids.

CANADA.

It is hardly worth while to discuss whether others would understand that a man was a beginner in queen-rearing because he advertised reduced prices on bees he had bought and Italianized, as the probability is that all other queen-rearers have been guilty of the same charge when first entering the business. The drift of the objection seems to be the danger that queens might be sold that were impurely mated by black drones in the neighborhood. Passing by the possibility that the black bees bought might have been from some distance, one may ask whether "Canada" demands that no one shall offer queens for sale unless he is in a locality entirely free from all but pure drones. If that be the view on which he bases his objection—and if not he will kindly tell us more specifically what his objection is—it may be as well to say at once that the probability is that the advertiser in question does not live in a locality where only pure Italian drones are to be found; and to add also that neither does any other unless he lives on some island.

The material difference in price between tested and untested queens comes from the fact that there is no positive proof that a virgin has not met an impure drone, until her worker offspring emerges. If the queen-rearer were positively certain that none but pure drones were in reach of his virgin queens, an untested queen would be just as good as a tested one, and there would be no need to distinguish in price.

If there be no other objection to the advertisement in question than that it might lead "Canada" to think the advertiser a beginner, and that impure drones were in his neighborhood, the American Bee Journal can hardly feel that it has been wanting in consideration for the interests of its subscribers in accepting the said advertisement.

Legal Rights to Bee-Territory in Australia

The business of bee-keeping is differentiated from almost all others by the fact that no man can hold an undisputed title to a given bee-range unless he holds absolute possession of thousands of acres of land. There is a somewhat general feeling that priority of location should be respected, but all are not agreed upon it, some holding that any man has a moral as well as a legal right to plant an apiary upon any rood of land he can buy or rent, no matter if the territory is already fully occupied.

One man vigorously advocated, some years ago, the idea that there should be such legislation as would give undisputed possession of a given territory, so that a bee-keeper might feel just as secure against intrusion as the farmer who holds his ancestral acres. But the idea was not popular, and he was unsupported, it seeming to the general mind that no just legislation could give one man full possession of a piece of land for farming purposes while another man should own the nectar upon it.

Exactly that sort of legislation, however, is what our bee-keeping friends on the other side of the globe have ob-

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tained. Before giving particulars, as obtained from the Australian Bee-Bulletin, it may be well to explain that what are called "Crown lands" seem to be the same as we call government lands. A bee-farm license would seem to give entire control of the ground, not to exceed 10 acres; while a bee-range gives control of the nectar within a radius of one mile. Here are the particulars:

Regulations for the conduct of bee-farms under the provisions of the Victorian Land Act Amendment Bill passed last session, have been approved by the Minister for Lands (Mr. Murray). These farms consist for the most part of excisions from areas held under lease from the Crown, and the regulations are, therefore, in the main, directed to defining the rights of the licensee and the bee-farmer. The license is issued for a period of 7 years, and no right of renewal is guaranteed. The bee-farmer may make improvements, but he does so at his own risk, and is not entitled to compensation. Stringent provisions are made against the careless use of fire, and the licensee is not allowed to keep a dog. The licensee is given the right of access to his holding over the original licensee's property, but he is prohibited under penalties from leaving gates open after passing through them. No individual, company, or corporation is allowed to have more than 3 bee-farms or bee-ranges. The aggregate area of the bee-farm licenses must not exceed 10 acres, whilst a bee-range consists of all the land within one mile of the apiary site. The licensee has, however, no right of entry to the 1-mile radius, which refers only to the area over which the bees could have the use of the trees.

Owners of apiaries on private lands adjoining Crown lands may apply for bee-range licenses, the rent of which is fixed by the Act at a halfpenny [about 1 cent] per acre within the mile radius. Areas included in the licenses can be transferred or sublet only on the approval of the Minister on a payment of a fee of \$2.42. Speaking generally, the rent for a bee-farm license will be 25 cents per acre. All applications lodged on or before March 31 will be deemed to have been simultaneously made. Forms of application will be available at the Lands Department. Applicants are requested to furnish full particulars of the site in respect to which the application is made. Where there is no opposition permits will be given for immediate occupation. Licenses are not allowed to cultivate, except with the consent in writing of the Minister.

The Regulations Governing the Bee-Sections of the New Land Act as now published, although they may not be exactly what we desired, are a compromise of the demands of bee-keepers and the contentions of occupiers of Crown Lands, and are the best this Association could obtain after a protracted struggle against opposing influences.

Will members please note that all applications for bee-sites made up to March 31 next will be considered as made simultaneously. After that date priority will go with date when application was received. In undisputed cases permits for immediate occupation will be issued, and applicants may, therefore, avoid much delay by agreeing first amongst themselves.

I would also point out that although the charge for a Bee-Range license is $\frac{1}{2}$ d. [about 1 cent] per acre, it is not obligatory for the holder of a Bee-Farm license to take out a Bee-Range license if he cares to take the risk of getting a competitor for his pasture within 2 miles of his apiary. On the other hand, an apiarist on private land may take out a Bee-Range license, securing to him the exclusive use for a distance of a mile of the bee-pasture on adjoining Crown lands, although he, himself, does not require a Bee-Farm license. The number of sites and Bee-Range licenses any one person may hold is 3. The amount payable as a royalty for a radius of 1 mile at $\frac{1}{2}$ d. per acre is about \$20.00.

R. BEURNE.



The Langstroth Gavels shown on the first page of this number were engraved from the ones presented to the National and Chicago-Northwestern Bee-Keepers' Associations by Mrs. F. M. Glessner, as mentioned on page 599. This was one of the most interesting features of the National Convention. Mrs. Glessner deserves to be congratulated on the happy results of her appropriate thought in securing and presenting the gavels. She has a nice little apiary at her summer home in New Hampshire, where she goes from Chicago early each spring and returns in the fall. She cares for the bees herself, and has been quite successful with them. She once told us that she thought that all nice white comb honey should bring at least 50 cents per pound in a retail way! Of course, very few people could afford to pay that price, but it serves to show how enthusiastic she is in bee-keeping, and how much she appreciates honey.

All who were present at the convention when the gavels were presented by Dr. Miller seemed to be greatly pleased with the whole event. As they were passed around afterward and examined by various bee-keepers, they seemed to be unable to agree upon the kind of wood used in making the gavels. Prof. McFarland, who was instrumental in securing the wood, explains the matter quite fully in the following, which has kindly been sent to us for publication:

DR. C. C. MILLER, Marengo, Ill.

Dear Sir:—Allow me to do a little more than merely giving the name of the wood of which those gavels were made. Here in Ohio the tree is called "Linden." When the forests in Ohio were far more extensive than they are now, I have seen Linden trees from 3 to 4 feet in diameter. The tree is indigenous in Ohio. It bears a blossom which bees greatly like; and the honey gathered from these blossoms was the kind which Mr. Langstroth thought to be most delicate of all. When Mr. L. came to Oxford, in 1859, more than half the original forests were gone. We lived on the border of the town—his place outside the corporation, and extending about 400 feet along the line. My place was just within the town limits—and extending very nearly a like distance—a street 4 rods wide separating our lands. On the side of the street bordering on his land there were no shade-trees. Our houses were on different sides of the street, and nearly opposite to each other, 60 or 70 feet from the border of the street. On my side, I had a row of 8 or 10 maple-trees. About 1863 or 1864, Mr. L. set out 8 or 10 Linden trees—say 2 inches in diameter at the time—for "bee-pasture" in after years. I was with him when the work was done. With a sharp knife he cut off all the broken or injured roots of the saplings, cutting on the underside of the root. He said it would greatly aid the tree in getting a good start to grow. The trees to-day are about 10 inches in diameter. When I went to get a limb of which to make the gavels, the lower limbs were too high for me to reach. Just then my neighbor, Mr. Miller, came along in a wagon, and I asked him to drive under the limbs, that I might be able to reach them. He did so, and I cut off a limb from a tree which I had helped Mr. L. plant nearly 40 years before. I took the tree which stood most directly in front of his house.

I thought a little account like this might be more acceptable than the bare name of the wood. I knew Mr. L. from 1859 to the day of his death—nearly 40 years afterwards. He was a graduate of Yale, and was tutor of Latin in that college 4 years, while Loomis was tutor in mathematics. Loomis wrote the best series of mathematical textbooks I ever saw—I used them for more than 30 years.

I am greatly gratified to know the spirit in which the gavels were received by the people. Mr. L. was as noble a man as I ever saw. He had only one son, who, at the beginning of the Civil War, was about 21 years of age. In 1862 the students here formed a company of soldiers and elected me as captain. Young Langstroth belonged to the company. The first summer was spent in West Virginia. In 1863 the regiment was reorganized. Langstroth was promoted to a first lieutenant, and took part in the East Tennessee campaign, under Burnside. Five or six years after the war he died from pulmonary trouble. I will send you, in a day or two, a small pamphlet concerning one part of that campaign. From the fact that Mr. L.'s son was in that expedition, I thought you might like to read the account.

Very cordially yours, R. W. McFARLAND.

Oxford, Ohio, Jan. 20, 1906.

There is an additional appropriateness in that the wood of which the gavels are made is linden, or basswood—not only a favorite of Father Langstroth, but also often a fine nectar-yielder. Surely these gavels will be prized by the fortunate recipients.

Bees Tearing Pasteboard.—Dr. G. Bohrer, of Kansas, received from Wm. Cutter, a fruit-grower in the same State, two pieces of pasteboard torn down by bees, and the question, "If a bee can not break through a grape-skin, how did it do this?" To this, Dr. Bohrer replied as follows:

MR. CUTTER:—Yours containing pasteboard picked and lacerated by honey-bees came duly to hand. In reply I will say that the pasteboard is not cut at all. It is, as you are aware, felt goods. The bees began at the edges of the pasteboard and picked it apart. Fruit-skins are of an entirely different texture, and can not by any possible means be picked apart as the pasteboard you sent me has been. The jaws of the honey-bee are not made for cutting, but are made to press wax, and weld and shape it into honey-comb. The yellow-jacket, wasp and hornet have sharp jaws made for cutting, and they can cut through the rind of grapes and other fruits.

Please put the jaws of a honey-bee under a powerful magnifying glass, and you will see that they are simply paddle-shaped, and when closed fit neatly together. They can not cut anything, but they can pick any felt or fuzzy bodies to fragments.

G. BOHRER.

The pasteboard pieces seem to show that they were parts of a pasteboard separator, as they were somewhat propolized. But this is only our guess.

Indiana Fair and Apriarian Display.—We have received the following from Walter S. Pouder, of Indianapolis:

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lis, in reference to the next Indiana State Fair and its apian display:

The Indiana State Fair, which begins Sept. 10, 1906, has offered \$258 in premiums in the bee-department this year. Competition is open to the world, and no restrictions required. For this liberal offer much credit is due Mr. Mason J. Niblack, of Vincennes, a member of the State Board of Agriculture. Mr. Niblack will have personal charge of this department, and as he is an enthusiastic bee-keeper, this means that exhibitors will have fair treatment, and that efficient judges will be appointed. Bee-keepers from everywhere are invited to come and bring the best they can produce. Here is the list of premiums in full:

	Premiums—1st	2d	3d
Display of comb honey, quality, quantity and manner of putting up for market considered.	\$25	\$15	\$8
Display of extracted honey, quality, quantity and manner of putting up for market considered.	25	15	8
Display of beeswax, quantity and quality to be considered.	10	8	6
Honey-vinegar, not less than 1 gallon, in glass.	5	3	2
One-frame observatory hive of Italian bees, showing queen, workers and brood in all stages.	10	8	6
One-frame observatory hive of foreign bees, other than Italians, showing queen, workers, and brood in all stages.	10	8	6
Display of bee-supplies.	20	10	5
Best general display of honey, beeswax, supplies, and other material pertaining to the bee-industry.	20	10	5

Any one wanting a premium-list can get it free by addressing Chas. Downing, Secretary, State Board of Agriculture, Indianapolis, Ind.

WALTER S. PODER.

We congratulate the bee-keepers of Indiana on their fine State Fair Premium-list. Surely they should put up a great display, and show themselves worthy of the generous treatment accorded them by their State Board of Agriculture.



The Best Size of Honey-Section

BY L. V. RICKETTS.

IT seems that Mr. T. K. Massie, on page 370, has gotten the wrong impression of my meaning in that part of my article on page 252 referring to "good company." Of course, I consider Mr. Massie and Dr. Bohrer, as well as all the other writers in the "Old Reliable," as good company. Yet I suppose Mr. Massie will allow me to "go it alone" (as far as Mr. Hasty is concerned) on the subject of full-weight sections; and especially after Mr. Hasty has said that he could not join my procession.

Mr. Massie says that he indorses all that has been said against the use of lighter weight sections. "But when Mr. Ricketts proposes to adopt a section $1\frac{1}{8}$ inches thick, I emphatically object. There are too many objections to combs over $1\frac{1}{8}$ inches thick, to adopt the thick ones he proposes." Mr. Massie proposes a section $4\frac{1}{4} \times 5 \times 1\frac{1}{8}$ inches, saying that such a section will hold (average) a full pound.

Now, in the article referred to by Mr. Massie, I mentioned only the $1\frac{1}{8}$ bee-way sections. I have proven (as stated in a previous article) that in this part of the country $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ bee-way sections, when fairly well filled with separated honey, weigh an average of only 14 2-3 ounces. The heaviest section of the ones used in arriving at the average weight, was a $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$, two-bee-way section, well and evenly filled with separated honey, the comb averaging $1\frac{1}{2}$ inches thick and weighing 16 ounces, wood in the section included. A comb of separated honey, $1\frac{1}{2}$ inches thick, I believe is as thick as we are likely ever to get it: a $1\frac{1}{8}$ inch bee-way section; and the average thickness, I believe, from repeated observations, will not be more than $1\frac{1}{8}$ inches. A comb of this thickness in a $4\frac{1}{4} \times 4\frac{1}{4}$ section will not weigh 16 ounces.

Now, if we should adopt a bee-way section $4\frac{1}{4} \times 5 \times 1\frac{1}{8}$ inches, as Mr. Massie proposes, the average thickness of the separated combs would likely be not more than $\frac{7}{8}$ inch. This I consider to be too thin for general satisfaction—too much comb-foundation and capping, and not enough real

honey. I think there is little danger of getting many combs thicker than $1\frac{1}{8}$ inches built in $1\frac{1}{8}$ -inch sections with separators.

As a farther proof that the $1\frac{1}{8}$ inch section is not generally considered too thick, I will cite Mr. Root when called upon to speak on "Size of Sections." He said, "At present in the United States, sections sell in this order: The $1\frac{1}{4}$ bee-way $4\frac{1}{4} \times 4\frac{1}{4}$ sections sell best." (Page 340.) Mr. Root is, of course, good authority on this subject.

If Mr. Massie had proposed a $4\frac{1}{4} \times 5 \times 1\frac{1}{4}$ inches, bee-way sections, instead of one only $1\frac{1}{8}$ inches thick, I might have joined his procession, as the $4\frac{1}{4} \times 5 \times 1\frac{1}{4}$ section was carefully considered by me at the time that I proposed the $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ section. The $1\frac{1}{8}$ inch bee-way section is too thin for me.

The reasons for my proposing the $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ inch section in preference to all others, are given on page 695 (1905), and I have learned no reason, as yet, to make any change. A section $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{4}$ inches is a good one, and, like the $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ inches, will weigh (average) 16 ounces when filled with separated honey. Either of the two last-named sections is an improvement on the sections in general use at present, and if put into general use would increase the sale and consumption of comb honey more than anything else beekeepers can do.

PULLMAN, WASH.

Institutes and Conventions as Educators

BY PROF. A. J. COOK.

TO-day education counts for more than ever before. "Educated fool," "book farmer," and other such phrases are more and more going into disuse. The reason is plain. Educated nations, no less than educated people, are forging to the front. "Little Japan" forced terms from "Big Russia" because she had laid firm hold of this best weapon in warfare as in peaceful employ—Education. The same good friend won the easy victory in the Franco-Prussian war, and has pushed Germany away to the front in all good lines of progress. General education, and ready opportunity to acquire the same, even for the poorest boy or girl, has more than aught else made our own country the best and grandest of the world. The same is true of men.

Carnegie once doubted the value of education in practical affairs. To-day he is its most able advocate and patron. He has seen education march to the head in the shop. Educated farmers in California—everywhere—are distancing those without culture. Even in our bee-keeping ranks, the Langstroths, Hetheringtons, Taylors, Hutchinsons, Heddrons, Doolittles, Millers, Hatchets, etc., are educated men. True, not college-trained, all of them, but the college is not a necessary step to education, though a most helpful one. Horace Greeley was never in college, but who would say he was not an educated man? He would be first to say that the modern college would have made the steps much shorter and vastly easier.

UNIVERSITY EXTENSION.

Today one of the efficient agents in educating all—and especially the masses—is the Institute, Convention, etc. The college in every State goes to those who can not come to it. In agriculture this is the "Farmer's Institute." Our conventions, associations and clubs are of the same ilk. They all bring the college and scientific ways and methods to the people. So it is one of the glories of today, that the college is not the exclusive benefactor of those who come to its lecture-halls, but it reaches with its equipment and facilities to all classes.

THE FARMER'S INSTITUTE.

As one who has been actively engaged in institute work ever since Michigan inaugurated this *regular system* of education, in 1875, I have watched its growth and power with growing appreciation and pleasure. The farmer's institutes of the United States have done a marvelous work for our farmers. Through their teaching, methods of work and practice have been revolutionized in more than one State, and often to the tremendous gain of the farmers financially.

As every institute would have "Bees" and "Honey Production" on its program, so every bee-keeper should be interested in these meetings.

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THE MODEL INSTITUTE.

While I may not claim ability to sketch a model institute, I, from my long experience and observation, may be able to give hints that will help to make such meetings strong and helpful in a large degree.

First, the institute should be well attended. This aids in insuring enthusiasm, spreads the good seed far more rapidly, and makes the expense of the institute more than justifiable. To secure this, a preliminary meeting where a wide-awake expert—the institute conductor—meets 15 to 30 of the people of the place, is most important. At this time committees on arrangements, exhibits, decoration of hall, music, etc., are appointed, with the promise, at least, of the chairman that he will act. A program is sketched, which the committee will change as circumstances suggest, and arrangements made to advertise the institute in every possible way; not alone posting of printed notices, but if announced in schools and churches, it will help greatly. Of course the local press must be urged to give, as they are usually ready to do, the most hearty support.

Again, at least half the speakers may well be college professors, experts, and outsiders, who have made a decided success in lines of farm work. These increase attendance, and add tremendously to the interest and value of the institute. But we must never omit home talent. The wide-awake, successful man of the place knows conditions, and his dictum will often be the best word spoken. A goodly number of ladies should be on the program. This brings the wives and daughters, and doubles the value of the meetings.

Decoration of the hall much more than pays for the trouble, while no one can appreciate the good effect of a fine, well-labeled exhibit of fruit, grains and vegetables, till he has seen the interest that gathers about them.

Good music is helpful—at least two pieces each session—while a prayer to open each day's exercises, by the clergymen of the place, gives good tone, and is appreciated by most of our people.

An experienced and wide-awake presiding officer is most important. This may well be the one who has charge of institute work, with two or three vice-presidents from the place, whom he may call to the chair as conditions suggest. The question-box in the hands of a bright, wide-awake man who knows whom to call on to get the best answers—for no one man can, or should, attempt to answer all or generally a major part—will be a vital part of the institute, and may well take from a fourth to a third of the time of each session. This gives a much-appreciated opportunity to broaden the program.

CONVENTIONS.

Many of the above suggestions will apply to the State and County associations like our bee-conventions. It is especially desirable to secure a large attendance, and nothing helps in this more than the fact that an expert or authority—the more the better—will be present to address the meeting. How the presence of Langstroth used to fill our bee-conventions! Heddon, A. I. Root, Dadant, and Dr Miller would each and all bring a full house.

For one, I am in favor of written papers. They should always be as brief as may be. Such are more carefully prepared, and are likely to focus attention, and give the best that the author has to present. The question-box—which should never be omitted—supplements the regular program in an excellent way. This affords ample opportunity for ex tempore effort.

In all such meetings we must exercise to induce the fullest and freest discussion of all topics presented.

Good Bee-Cellar—Longevity of Queens—Watering-Place for Bees

BY F. L. DAY.

IT was quite cold last fall at the time I put the bees into the cellar. After the roof of the cellar was covered with leaves and straw for winter it took about a week for the temperature to rise to 42 degrees. From Dec. 5 to April 5 it did not go above 43 or below 40 degrees. During this time the outside temperature varied about 100 degrees. The

consumption of stores per colony was not more than 7 to 10 pounds during the 134 days the bees were in the cellar.

Two years ago the bees were in the same cellar 165 days. Then they had sugar syrup for stores, while the past winter they had a good grade of fall honey. On the whole they stood the longer confinement on sugar better than the shorter on honey. The 30 colonies came through the past winter without any loss, but several were quite weak. About 20 were extra strong, and in the best condition; 3 were queenless, and the balance ranged from fair to weak. Two of the queenless colonies were united with others having queens, and the other one has been nursed all the spring at a decided loss.

"LOCALITY" CAUSES LOSS OF QUEENS.

On page 233, Mr. Hasty reviews the short life of my queens and makes a suggestion that "locality" may be the cause. But he finally *guesses* that it is owing to the strain of bees. I consider the former idea the better of the two. I have only two bee-keeping neighbors; one of these increased from 8 colonies to 30 last season by natural swarming, besides a number of swarms that went to the woods. He keeps no account of his queens, and, indeed, seldom opens a hive, except to put on or take off supers.

My other neighbor's bees swarm even worse, and he told me that he lost all his old queens last season on account of excessive swarming. These two lots of bees are of totally different strains from mine.

Hence I conclude that the excessive swarming of my bees and consequent loss of queens is mostly due to locality. I saved only one old queen last season, and did that only by taking her from her own colony and placing in a nucleus. Locality causes the swarming, and that the loss of queens.

SUCCESSFUL WATERING-PLACE FOR BEES.

This season I have succeeded better than usual in furnishing my bees a watering-place which suits them. A common store-box was placed near the middle of the yard, on the ground, with one side removed. It was carefully leveled and fastened to stakes driven into the ground. The open side was turned south. Two grooved boards about 10 inches square were then made, with wide cleats on the under side to prevent warping. For each one of these a 2-quart mason fruit jar was used. To 1 of these when filled with water was added a tablespoonful of salt each time. The other jar was filled with fresh water. The jars are inverted on the boards and the water fills the grooves which are about $\frac{1}{4}$ inch deep. Boards and jars are then put into the box.

The bees much prefer the salt water, of which they take about 5 times as much as of the fresh. The salt-water jar is often emptied in one day, sometimes in $\frac{1}{2}$ day.

The jars are usually filled at night after the bees are done flying. On cold, rainy days they come to this watering-place by hundreds, and very few get chilled. They often take 3 quarts of water per day.

Detroit, Minn.



Conducted by LOUIS H. SCHOLL, New Braunfels, Tex.

Comb Honey in Place of Queen-Cage Candy

Not having queen-cage candy, if comb honey were used in its stead, would the bees remove it to release the queen?

I trust to have something more interesting to offer at another time.

W. F. McCREADY.

The above question is just a little more important than it may seem, for I have had some experience in the matter of using comb honey, or honey with wax, in queen-cages just as in the question above. Sometimes—at out-yards, especially—I have used a bit of comb honey in place of queen-cage candy, and I can remember well how I lost the use of several fine queens by it. It seems that the bees eat

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out the honey and leave a greater part of the wax and remold it, perhaps adding thereto, building it into small comb in such a way as to obstruct the passage-way. The queen is thus left "behind the bars," and if an examination is not made some time soon after introducing the cage, it may cause trouble.

I have tried candied extracted honey, when the weather was not too warm, with success. If the candied honey is not very solid there may be trouble by the queens being released too soon.

Cotton Honey—Beginners and Easily Discouraged Folks

Cotton is one of our very best honey-plants, and especially is this true where it grows on black, waxy land. Cotton grown on sandy land does not yield nectar as plentifully as it does on black land. This, I think, accounts for some saying that the cotton-plant is not a honey-yielder with them. One of the heaviest honey-flows I ever witnessed was from the cotton-bloom. The honey is water "clear," and of good body and flavor, and I consider it the equal of any honey I ever saw; but like alfalfa honey, it is quick to granulate.

DON'T BE AFRAID TO ADVISE BEGINNERS

I am receiving letters from all parts of this State, saying, "What is the matter with the bees—they have quit swarming and are killing off all their drones?" etc.

To the practical apiarist the question almost answers itself, but to the novice it is not so plain. When bees destroy and drive out their drones in the height of the breeding or swarming season, there is no surer sign to the experienced apiarist that no honey is being gathered, but to the novice it is not so plain.

Don't be afraid to give advice to the inexperienced on bees or bee-keeping for fear they will become competitors later. I tell you, bee-keepers are born, and not made. I have been handing out bee-literature and answering questions, loaning bee-books, etc., for more than 25 years, and it will not average more than one in ten who will stick to the bees after you have started them right. So, don't be afraid to start others, always remembering that you had to start once, and had it not been for the help of others where would you have been?

BEE-KEEPING FOR EASILY DISCOURAGED FOLKS

I would not recommend bee-keeping to those who are easily discouraged in any business, for the time is sure to come in bee-keeping when their nerve will be put to the severest test. I confess, too, that at such times as the present, when the bees should just be reveling in honey, that we are compelled to feed for weeks at a stretch; it is trying on the nerves of some of us older ones in the business. We have now been feeding the bees for nearly 6 weeks, and we can hardly hope for a change for the better before June 10.

Rescue, Tex., May 10.

L. B. SMITH.



Conducted by EMMA M. WILSON, Marengo, Ill.

Honey Superior to Sugar as a Nourisher

For the many sisters who are constantly on the lookout for that which shall best serve as nourishment for their loved ones, here is something from the *Praktischer Wegweiser fuer Bienenzuechter* that can not fail to be of interest:

Sugar contains in large quantity that which is needed to support the body, but before the material it contains can be received into the blood, a change in it must be made by the stomach. That change, separating the two kinds of sugar chemically united, demands strength, exertion, of the

stomach. A weak stomach, however, has not the necessary strength, and so the sugar remains either wholly or in part undigested. Such undigested sugar is not received into the blood, but passes out with the excretions. Not only is no benefit received from it, but actual harm; for on its way through the alimentary canal it causes abnormal fermentations, producing disease of stomach and bowels.

The sole sugar-containing material that first requires no digestive process is honey. As water, in certain quantity, passes fully and directly into the blood, so honey, without leaving behind the least trace of residuum, passes directly into the blood, and serves for the warmth of the body and the development of vital power. Honey, even though not able alone to sustain life, is a most excellent nutrient.

Not only is honey an excellent food, but it is inexpensive. In order to get the same nourishment offered by a pound of honey, 3 pounds of lean beef must be used, or 2 pounds of eggs.

Souvenir Post-Cards—Bee-Keeping in Colorado

DEAR MISS WILSON:—We have been photographing everything photographic on the ranch—colts, dogs, pet lambs, and bees. I do not know whether you suffer from the post-card mania, but anyway I am sending you two post-cards of my apiary.

I brought all my 46 colonies through the winter to the middle of April, and felt quite proud. Then I went away from home for a few days, and the bees seized their chance to rob out a weak colony, and the queen died in another. I also doubled up another weak one, and so reduced my colonies to 43, spring count.

Yesterday I divided a double colony, which I have been trying on the Alexander plan—a weak colony over a strong one, with an excluder between. It was quite a success. Three weeks ago the top hive had only 2 combs of brood. Yesterday it had 7 frames covered on both sides, and both hives packed with bees. Of course, it lost its field-bees when I took it to another stand. I have another on the same plan, but it is not quite ready to divide yet.

By the way, what do you usually mean by a comb of brood? Would brood on both sides of the frame be one comb, or two?

So far I have had only 2 swarms, and I am rather hoping, from the look of things, that it will not be a year of excessive swarming. The alfalfa is just beginning to bloom, so the bees and bee-keeper are looking forward to a good honey-flow.

I wish you all success with your own bees. MISS COLORADO, Delta Co., Colo., June 9.

Please accept hearty thanks for the pictures you so kindly sent. They are so interesting that they are being lent to the editor in the hopes that they may be available for reproduction, so that the rest of the sisters may enjoy them, too.

You are to be congratulated on your success with the Alexander plan of strengthening a weak colony. We tried it, and with us it was a failure. Possibly because our bees were hybrids.

A comb of brood means all that is in one frame, including both sides of the comb. A frame of brood is the same as a comb of brood, and for short is called "a brood," so when we say a colony has "6 brood," it means it has 6 frames fairly well filled with brood; or, to be a little more definite, that at least half the cells in each frame are filled with brood.

[We would like very much to use the two pictures of Miss Colorado's apiary, but, unfortunately, they are "blue prints," which do not engrave well. If she can send them to us in usual photographic color, we will be pleased to put them in this department some week.—EDITOR.]

Honey as a Health-Food.—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey, the more honey they will buy.

Prices, prepaid.—Sample copy for a two-cent stamp; 50 copies for 70 cts.; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; or 1,000 for \$7.50. Your business card printed *free* at the bottom of front page on all orders for 100 or more copies. Send all orders to the office of the American Bee Journal.

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Conducted by MORLEY PETTIT, Villa Nova, Ont.

What Attracts Bees to Flowers

A short time ago a long article in the Mail and Empire showed conclusively that bees are attracted to blossoms by nectar and pollen regardless of color or perfume. Now the same paper copies from the Agricultural Epitomist, a paragraph stating, without proof, that "the attraction exercised by the form and color of flowers is approximately four times as great as that exercised by perfumed pollen and nectar taken together." That the latter statement should be true is contrary to Nature, reason and facts.

Outlook Not Promising

The bees are pretty nearly at a stand-still with us just now. The fruit-bloom was short and the clover is just coming in. The thermometer this evening is down to 48 degrees, and the outlook is not at all promising for a good honey-crop, but it may improve in a few days. We will hope for the best.

J. CREECH.

Lambton Mills, Ont., June 11.

Bee-Paralysis in the North

We generally consider this disease hardly worth serious consideration in the North, yet occasional experiences and reports from correspondents show that it is well worth looking after.

Unlike foul brood, the disease seems to attack only adult bees. In the hive, at watering-places, even on blossoms where they are collecting honey and pollen, they suddenly become palsied, abdomens swell and turn black. They crawl about, trembling violently, and soon die. A correspondent writing just recently gives his experience as follows:

MR. PETTIT:—I have a colony of bees which seems to have something seriously wrong with it, and as you are probably the nearest bee-man of experience, I am taking the liberty of asking your advice and experience on the subject.

I transferred the colony from an old chaff hive into an 8-frame Langstroth hive in apple-bloom time. It built up remarkably well, and had commenced work in a full-depth super of combs. Yesterday morning (June 15) I noticed about a pint of dead and dying bees in front of the hive, and a great many sick ones crawling through the grass. The other bees were at the same time hauling out dead and dying bees, and have been doing so ever since.

Upon opening the hive I noticed a great many which seemed sick, with their wings sticking up, and their bodies shiny. I did not know what it was, and this evening I took the advice given in "A B C of Bee Culture" on bee-paralysis, and shook all the bees into a new hive of comb, at the same time dusting sulphur on the bees and comb. The old frames of comb and brood I placed upon another colony, minus any bees.

Do you think it looks like bee-paralysis? The combs I shook the bees upon in the new hive had about 25 pounds of honey in them. Will that do any harm, or should they have been placed upon new frames of foundation? I do not know if what they have is catching, and judging from the way they have died it would soon ruin an apiary if it is contagious. Your opinion would be greatly appreciated.

By the way, I did not give the super which the diseased colony had been working in to any other colony. All my other colonies seem perfectly healthy.

Palermo, Ont., June 16.

Some recommend sprinkling brood and bees with dry sulphur, but this is rather contradictory to the advice we had recently to sprinkle drone-brood with dry sulphur to kill the brood. Sprinkling top-bars of brood-chamber and entrance freely with brine is recommended. Salt is certainly a great disinfectant.

Another digs a trench in front of the hive for the dead and dying to be dropped into, and gathers them up and

burns them every day or two to prevent contagion. No matter what the treatment, the disease usually disappears in a good honey-flow, after having done considerable damage. Still, it should be thoroughly investigated by our scientific men. Reports from such, and from all who have had any experience, will be of mutual benefit to "Canadian Beedom" readers.



The "Old Reliable" as seen through New and Unreliable Glasses. By E. E. HASTY, Sta. B. Rural, Toledo, Ohio.

Weak Colony Over Strong and No Bee-Zinc

So it turns out (just to surprise us) that in keeping a weak colony warm over a strong one, it is not absolutely necessary to have perforated zinc between. "Nebraska," without any zinc, lost fewer queens than several did who used excluders as per program. Page 429.

Bees Warming an Empty Upper Story

As to the Miller-Doolittle experiments about making a colony warm an empty upper story, I will not dip in very deeply. I'll just say this much: If the upper story is warmed (9 degrees, or 22 degrees, or any other amount) it is warmed in one or both of two ways—by warm air rising, or by radiation from the body-surface of the bees—and their immediate surroundings. In winter very little air passes through the cluster to rise afterward, the cluster is so solid. After spring work begins, indoors and out, more air gets through because the bees are not compact, but moving about. In winter the surface bees can not radiate much heat—they are so torpid and cold; and the warm ones are not exposed. In spring the radiation is considerable because the surface bees are warm. Page 441.

Uncapped Bait-Sections of Honey and Granulation

It's surely a very comforting doctrine to believe that bees will always empty baits if the cappings are broken. Doolittle ought to know. My faith would be too weak to trust 12 of them on one hive. I never, of late years, have so many as even 3 to a hive; and I manage to use them mostly when the bees are hungry and ready to take out the honey because they want it. Guess he's right in scouting the idea that just a few granules can be harbored in empty cells and plant seeds of future granulation, somewhat as microbes plant the seeds of diseases. Page 444.

Foul Brood in Ontario

Ontario's new foul-brood law seems to be unusually vigorous and severe. For selling diseased bees a \$400 fine can be inflicted, or two months in jail. And it looks as if McEvoy had failed to convince the Canadians, as a whole, that hives are harmless. Hives are ordered destroyed when the colonies are destroyed. Page 446.

Mesquite for Honey and for Rhyming

And so the mesquite, which same grows in the arid southwest—and piles in much exquisite honey—is so pronounced as to rhyme with "sweet" and "beat." Worth four stanzas to find out. Page 448.

Alley's "Two Queens"—Laying of a Queen-Bee

Arrah, Comrade Alley! That was a foine bargain the widder drove with ye. Wouldn't sell ye the quane except in a job lot—with herself for one item. And ye had to have the quane all the same!

Mr. Alley gives us some mathematics of the knock-down sort. Impossible for a queen to keep 14 frames full of brood except by laying 111,384 eggs every 21 days. We



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strain hard enough to believe a queen lays 2000 eggs a day; and this calls for 5304. Four eggs a minute, very nearly, with no allowance for any resting spells night or day—or meals—for 3 weeks. Did you ever watch the minute hand of a watch and count off the quarters? Come down a cat or two, Mr. Ferris. Page 445.

Holy Land Bees

Mr. Scholl's characterization of a colony of Holy Lands, all on the wing at once in their fury, is not attractive to quiet folks. If we had 'em we should hardly be developing into the happy Joes he seems trying to make us in his closing paragraph. Page 448.

Color of Honey Varied in Different Years

Prof. Cook doubts seriously if honey purely from the same plant is ever of different color different years. I think he would yield to this small extent on that point. A honey which is very light in color when the yield is profuse may be considerably darker when the yield is small. Take basswood for example: About as white as the whitest in a great yield, but quite perceptibly yellowish in a year when basswood only yields just a little. That is, I suppose, the amount of yellow coloring-matter secreted is about the same one year as another—enough to show plainly when there is but a trifle of nectar to mix it with, but scarcely enough to be noticed in the gush of a 10-pound-a-day flow. Page 463.



NATIONAL AT CHICAGO

Report of the 36th Annual Convention of the National Bee-Keepers' Association, held in Chicago, Ill., Dec. 19, 20 and 21, 1905

(Continued from page 581.)

PRESENTATION OF LANGSTROTH GAVELS.

Dr. Miller—Mr. President, I am commissioned to present, through you, Mr. Dadant, to the National Bee-Keepers' Association, a gavel whose source can not fail to make it an object of interest to every bee-keeper present. It is also my pleasant task to perform a like service, in presenting its mate to the Chicago Northwestern Bee-Keepers' Association, through its President, Mr. George W. York.

The loving heart of a good friend of both Associations conceived the idea of obtaining two gavels which should be constant reminders of the man to whom apiculture is so greatly indebted—Rev. Lorenzo Loraine Langstroth. So an appeal was made to Dr. Dan Millikin, of Hamilton, Ohio, to see whether he could not secure a piece of wood from a tree in some way associated with Father Langstroth. Dr. Millikin in turn applied to Prof. R. W. McFarland, residing in the same county, at Oxford, where Langstroth lived for so many years.

In reply came a package and a letter in which Prof. McFarland wrote, in part, as follows:

LETTER FROM PROF. MCFARLAND.

The weather was so disagreeable to me, and my physical self so much under the weather, that I did not get the Langstroth limb until sunset, Thursday. * * * I saw Mr. Langstroth while he assisted in planting the tree, nearly 40 years ago. I held the end of the limb yesterday, while my neighbor sawed it off. So your friend may be assured that this is the genuine article.

While I was young, and was on my father's farm, 65 or 70 years ago, I was accustomed to attend the bees on our place. After seeing Mr. Langstroth's way, I saw that the old farm way was crude in the extreme. I assisted Mr.

Langstroth 2, 3 or 4 weeks every summer for 10 or 12 years in the busy season. * * * It was a "joy forever" to be with Mr. L. and hear day after day, the simple, lucid words of wisdom which set forth the hidden things of nature and made you see them—and all unconsciously, so to say—things which among the bees he had seen and found out for himself.

Mr. L. was one of the finest men I ever saw—the very highest style of man. Having personally known him for more than 30 years, I may be able to give a point or two.

He was native of Baltimore; graduated at Yale College; became a Congregational minister; had charge of a college for women in Philadelphia for some years; lost his health and had to give up teaching; stayed a year or two in Mexico, hoping to regain sound health, but never did; studied bees and mastered the subject. For 6 months of every year—the winter months—he was unable to work at anything, usually kept himself closely in his room, but in the summer he was sunshine itself. His death well closed out a beautiful life. In the city of Dayton, Ohio, he was staying with a married daughter after the death of Mrs. Langstroth, and in church, one Sunday morning, he had just concluded the opening part of his services, preparatory to administering the sacrament, when taking his seat, in a moment his head fell on his shoulder. Men rushed to him and gently laid him down—but he was dead. R. W. McFARLAND.

You will likely want to know more about this man who for 10 years or more helped Mr. Langstroth for 2 to 4 weeks each year. A letter from Dr. Millikin tells something about him. This is a private letter, but is so thoroughly interesting and enjoyable throughout that I cannot forbear reading almost the entire letter. Injunctions have been laid upon me to say as little as possible about the donor of these gifts, but a full appreciation of this letter demands that you should know it is written to Mrs. J. J. Glessner, of Chicago, the one to whose kind thoughtfulness we are indebted for these precious mementoes. I shall read the letter just as it is, and trust to making my peace with Mr. Glessner as best I may afterward, for any betrayal of confidence:

LETTER FROM DR. MILLIKIN.

Dear Mrs. Glessner—I am about to send you some wood from the Langstroth place—it shall go by express to-morrow.

When my wife made known your needs to me I thought at once of my father's friend, and my brother Joe's teacher and colleague, Prof. R. W. McFarland, of Oxford. He was an authority in classic learning ever so long ago, and an editor of one or two good editions in Latin. He was a mathematician so high in the second class that it always appeared that he ought to break into the class of thoroughly great imaginative mathematicians. He was no mean astronomer. He was a practical civil engineer. He lived long enough to become a very useful and successful mining engineer. He was a college president in spite of his many protests. He was, and is, a very enthusiastic naturalist. They don't make any such men now. Rockefeller and Carnegie together couldn't turn out more than two in a long year.

I think that Prof. McFarland is nearer 80 than 70 years. I hear that his locomotion is seriously impaired, and that his sight is also failing. Yet the letter which I enclose for you shows that he has at least one good eye. He is quite in retirement (the delightful retirement of an old scholar), but his influence upon the young disciples who love him and cultivate him, by far outweighs the impression of all missionaries to Africa, past, present, and to come.

I have written my politest letter of thanks to him. It is pure impudence in me to ask you to do the same and delight the soul of the gallant old gentleman.

Do you know that this is a case of "me, too?" I knew Langstroth very well, and I knew him at a very impressible time of my life. When I was about 16 he came down to Maplewood, where my father had about 20 hives of bees. At that time the enemies of the bee were apparently less destructive than now, for those neglected bees had persisted and they thrived through many years of comparative neglect. Occasionally it was found that a colony had died out in the winter, whereupon the hive was cleaned, sulphured, painted and set away for the swarms that were sure to appear when the clover and hot June days came. My father did not go near the hives; my mother worshipped the little bees because they were the pets of her father who "died in '57." An old



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English gardener managed to steal a little honey now and then, but I do not remember at all how he got it; I only know that neither father nor mother would consent to the killing of bees with sulphur in order to get the honey.

There came a time when Langstroth hives were made in Hamilton. The manufacturer was authorized to sell hives to my father, with the condition that Langstroth himself should come down from Oxford and transfer the bees, and he was so insistent that my father bought 30 hives to get rid of the pestiferous sash-and-window-blind man!

So in June, after I was out of school, and when the bees were busy with white clover and locust, here came Langstroth to the big farm. He was a large, slouching man, with a tendency to heaviness in the face. When the sudden look disappeared pain was the predominant expression. I do not now remember that he ever smiled. He came in a Lincolnian linen duster, and his other clothing was tidy and shapeless.

We received him in such fashion as became a freakish mechanic and inventor. It was many hours before I learned that he was a graduate of Yale, and hours again before I knew that he was an ordained Presbyterian minister. Later he was revealed to me as one who lived chiefly for the good of others. I fell wholly in love with him when I found that he was an out-of-doors man, a profound naturalist, and, in every fibre, a poet.

I learned, months after, that his career as a teacher and a preacher was spoiled by fits of melancholy. During these seizures he was often unable to endure the sight of a human face for many days together, and he was sometimes obliged to seclude himself from the public for many weeks consecutively. At the worst he fasted incredibly. When all was over, he would come forth, a staggering cadaver, slowly and shyly to resume his place in the family and in society. It is a marvel that, like most geniuses, he did not learn to blunt his pain with alcohol, or end all with suicide. When I had learned that he was under the curse of genius I comprehended his countenance better, and I came to doubt that the cloud ever lifted from his noble mind. If I mistake not, he died at the top, and achieved the only rest possible for such as he.

Well, I watched him from afar; I brought him dry and rotten maple wood and saw him subdue the bees with smoke. When they were gorged he inverted the old hive and drove his tens of thousands into an empty box set upon it; I saw the myriads shaken upon a sheet; I noted the orderly march into a Langstroth hive. We took the old hive to the cellar and mounted the combs as well as we could in another Langstroth hive, and we soon drummed out another colony of bees to take possession, and that day I graduated an apiarist. It was the first of many happy days with Langstroth and bees.

DR. MILLIKIN

Dr. Miller—Mr. President, may the peace-loving spirit, and the spirit of unselfishness that pervaded the entire life of Langstroth, be present at all our sessions, whenever and wherever these gavels are wielded.

Pres. Dadant—The thoughtfulness which prompted this gift can only be rewarded by a vote of thanks from the Association and I will await the motion.

Mr. Taylor—I make the motion.

Dr. Bohrer—I second that motion; and before the motion is put I wish to supplement Dr. Miller's statement. A remark occurred in one of the papers that they had never seen Mr. Langstroth smile. I met him at one time and I think he was one of the jolliest men I ever met. That was in 1864. I was home from the army on furlough. I didn't see him any more until 1866, when I happened to catch him in his apiary when one of his attacks of melancholy was on. He was out in his apiary when I came to the gate and opened it, and I went right to him, and it was where these gavels were taken from, at the brick house standing in the grounds in Oxford, Ohio. He recognized me and shook hands with me, and said, "Please excuse me and talk to Mrs. Langstroth and my son James." That day, however, he did not smile. I saw him at what was known as the American Convention of Bee-Keepers, in Cincinnati, a few months later, and he did not smile there. It was a short time after he had lost his son, James T. Langstroth, and he asked me if I had ever endured any such experience as that. I said, "Not in the way of a son, but I have lost some near and dear friends. The most I can say in cases of this kind is to look

to the Mighty Physician, and in addition to that the record of your son is one no one need blush at." The old gentleman did not smile. I think the Association ought to accept this gavel as a memento, and it should be guarded and looked after with jealous care because he was one of the greatest men in bee-keeping that the world has ever known. There probably will never be another man live that will do so much for the profession as did Mr. Langstroth.

Mr. Hilton—I will now move to amend the motion, that the vote be given by rising.

The President put the motion as amended, and on a vote being taken it was carried unanimously.

Pres. Dadant—I wish to say the Presidents of both Associations will take good care of these gavels, and that they shall be handed from one President to another as long as the Associations last.

Dr. Miller—One little personal remark. At one time when I was for some part of the year working in Cincinnati, I went up to see Father Langstroth at Oxford, and I did not see him, he wasn't there at all. A very short time after that I was working in my office down in the city preparatory to the first of Theodore Thomas' May festivals, and Mr. Langstroth came in and we had quite a pleasant little visit. I was unknown entirely to him, and owing to the fact that an obscure bee-keeper had called to see him, he came back to see me. I think it shows the humble spirit of the man.

Mr. York—I would like on behalf of the Chicago-Northwestern Association to thank the donor of the gavel, and it seems to me it is a very strange coincidence. I knew nothing at all about this, but about a month ago I designed an idea of having Mr. Langstroth's picture on the front page of this paper, and a poem that had never been published before, that he mailed to me over 10 years ago. I had the pleasure of meeting Mr. Langstroth at the Toronto convention, in 1895. I think Mr. Hutchinson will remember I went to Flint on my way to Toronto, and I believe it was near the Port Huron tunnel that Father Langstroth and his daughter, Mrs. Cowan, boarded the train; but I had never seen him before that. After we had ridden some miles Mr. Hutchinson said, "I believe that is Father Langstroth." They traveled nearly all day with us in the car, but we did not speak to him. At that convention I had the very great pleasure of meeting Father Langstroth, and talking to him for about two hours in the hotel while a number of the bee-keepers went to visit the Exposition. It seems to me I never had been so entertained with any conversationalist as I was at that time with Father Langstroth, and I have been thankful to this day that I went to Toronto and had the pleasure of meeting the great Father Langstroth.

Mr. Aspinwall—Although I have been a resident of Michigan for 23 years, my home was originally in New York State, and my acquaintance with Mr. Quinby was some considerable, and up to the time of 1895 I had never met Mr. Langstroth, and I fully endorse the remarks made by Mr. York, of the courteous manner in which he received strangers and guests and entertained them. Previous to my return home, Father Langstroth, upon that short acquaintance, volunteered to send me an autograph copy of his work, which he did shortly after that session. I merely state this to show the spirit of the man as manifestly displayed by the remarks of Dr. Miller, that he lived largely in the interests of others.

Pres. Dadant—I wish to state that this gavel is engraved as follows: "Wood from tree planted by Rev. L. L. Langstroth in his garden in Oxford, Ohio. National Bee-Keepers' Association, 1905. F. M. G."

Mr. France—I would like to request on behalf of the Association, if they would favor it, that the Association draw upon its funds sufficient to have Father Langstroth's picture framed and hung in our convention halls at future meetings. I would move that. (Applause).

Dr. Bohrer—I second the motion.

Pres. Dadant—It will be understood that the motion is simply to recommend this to the Directors.

The President put the motion which was carried unanimously.

Dr. Miller—with your permission I would like to read the poem that Father Langstroth had written which has never been published till just now. It is entitled,

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TO MY WIFE IN HEAVEN.

Wife of my youth—I dream of thee,
Arrayed in bridal form;
I hold in mine thy trusting hand—
Hail! happy marriage morn!

To God we vow our glad "I will"—
Thy soft, responsive voice—
Of twain made one by wedded bands—
And I, with thee, rejoice.

Sweet, loving wife—God's gracious gift—
And art thou all my own?
This plighted hand I'll closer clasp—
Dear Lord! I wake alone.

Ah! Silent lips, whose law of love
So gently swayed my will,
When trusting in thee, heart to heart,
We were united still.

Weeping lasts but a night, dear wife;
Joy cometh with the light;
But for a moment darkened days,
Then where there is no night.

Both shall be present with the Lord,
Griefs and partings past;
Soul knit to soul by Heavenly bands
While lengthening ages last.

Dr. Bohrer—I received a letter embracing that sentiment a few days after he buried his wife.

Mr. York—I think it ought to be made a matter of record that Dr. Bohrer was present at the first meeting of this Association, and is present at this meeting.

The convention then adjourned to meet at 2 p. m.

(Continued next week.)



Send Questions either to the office of the American Bee Journal, or to DR. C. C. MILLER, Marengo, Ill.

Dr. Miller does not answer Questions by mail.

Some Swarming Questions

What is the reason my queen and cells were destroyed? I had a 5-banded Italian colony and wanted to Italianize part of my apiary as described in your answer to "Pennsylvania," on page 390, in the last part of answer to Ques. 4. I will give you the whole history of it: The Italian was in hive No. 20. On June 4 I looked for queen-cells, and there were eggs in them probably 2 days old, but no larva. On June 6 they swarmed. I looked for queen-cells and found 12 with larva and eggs. The swarm clustered on a limb. I cut the limb and shook them in front of a hive. It was windy, and when I shook them they all took wing and started off. I made for the gun and shot 6 times, but they wouldn't stop. What was the reason? It has never happened before. So I exchanged No. 20 with No. 11, and it cast the second swarm on June 18; I set hive No. 20 in the place of No. 9. It rained that evening and the next evening, and at sundown I saw a big excitement in front of the hive. I looked and saw a dead queen they dragged out, so I quickly opened the hive to save the rest of the queen-cells, if any left; but about half the queens had emerged and the rest were destroyed. I had a large entrance to the hive, $1\frac{1}{2}$ inches. But the hive was crowded with bees and honey coming in when it wasn't raining, and lots of honey in the hive. Now, what was the reason they didn't continue swarming?

MISSOURI.

ANSWER.—I don't know. Bees do exceptional things, and it's hard to give any reason for it. In the first place it is an unusual thing for a prime swarm to issue before queen-cells are sealed; and yet your bees swarmed June 6, when 2 days previously only eggs were in queen-cells. That means they swarmed at least 3 days before any cells would have been sealed. I don't know why.

The second unusual thing with you was that shooting did not stop the swarm from going off. That does not seem so very strange; for a

swarm does not always pay attention to shooting. When a swarm is shaken from a limb it usually does not leave, but alights again. Sometimes, however, it takes its departure upon being shaken down, and this time was one of the "sometimes." I don't know why. But it may be remarked in passing that you *shook* the bees in front of a hive, after cutting off the limb. It is entirely possible that the swarm would have quietly entered the hive if, instead of shaking the bees off the limb, you had gently laid the cluster directly at the entrance, perhaps helping matters by picking off a few bees with a twig, and starting them into the entrance.

The third, and most provokingly unusual thing, was that No. 20 did not swarm again after being put in place of No. 9. The explanation comes, however, if it rained throughout the day after the change was made. As I understand it, you put No. 20 in place of No. 9 June 18, and it rained that evening and the next evening. Now if it was rainy enough throughout the day June 19 to keep bees from flying much, then it was much the same as if No. 20 had been left unmoved, and it would be nothing strange that No. 20 should be sufficiently weakened to make the bees give up further thought of swarming, allowing all extra virgins to be destroyed. If, however, June 19 was rainy only in the evening, allowing bees to fly freely throughout the day, I can only say it was an unusual thing that the virgins were destroyed without further swarming, and I don't know why.

The one comfort in the case is that unusual things are not usual, and so you are not likely to have the same things occur often; possibly never again.

Cutting All Queen-Cells to Prevent After-Swarms

Will cutting out all queen-cells but one a few days after a colony swarms prevent the issuing of after-swarms? I tried this one season, but was unable to watch results.

IOWA.

ANSWER.—Tradition says the plan is successful, and I know of no proof to the contrary. If you try it, be sure to report success or failure.

White Sweet or Yellow Sweet Clover—Northern or Southern Bees and Queens—Wintering Bees—Finding Wild Bees

1. Which is the better honey-producer—white sweet or yellow sweet clover?

2. For Southwest Missouri which would be the better to send—South or North for bees or queens? Which would do the better?

3. A neighbor has a colony of black bees and lots of them are curious looking. They have no hair, and look very much like a small, black, slick horse-fly. The other bees fight and kill them, and the ground is covered with them around the entrance of the hive. What is the matter with them?

4. What do you think about wintering bees under a heavy bluff facing the South where the sun could shine on them?

5. Do you think bees would do well in the rough, hilly southwest Missouri country, where there is plenty of red, white and sweet clover, basswood, sugar-tree, sumac, and many other things the bees work on? We have lots of wild bees in the timber.

6. Have you any secret or good way to find wild bees in the timber? If so, come down and help me a month, and I'll give you half of the fun, all the honey, and I'll take the bees.

MISSOURI.

ANSWERS.—1. Probably not much difference in yield, but the yellow is reputed to be about 2 weeks earlier than the white. That makes the yellow more valuable in some places, and the white in others. Where white clover abounds the two weeks earlier would be of no advantage, as it would come in the time of white clover, and if the yellow also closes two weeks earlier than the white, the white sweet clover would be of more value. In localities where there is lack of forage during the first two weeks of the yellow sweet clover, then the yellow clover has the advantage.

2. You will probably find no difference.

3. Most likely bee-paralysis.

4. Probably a good place.

5. From the description it ought to be just the place for bees.

6. I never went bee-hunting but once, and that was one time when I was on a visit to A. I. Root, many years ago. He did the hunting and I trotted around after him. So I'm afraid I'd hardly earn half the fun and all the honey.

Queen and Hive Questions—Finding Queens

1. Are untested queens mated, or must I purchase tested queens to be certain to have pure blood of any strain desired?

2. What is the difference between standard Italians and red-clover Italians?

3. If I rear some queens early next spring, could they be mated in the upper story of the hive before it is warm in the spring?

4. Would such queens reared here in this latitude (central Indiana) so early in the spring that the bees could not fly, be as good as those reared in a warmer climate, or later in the season here?

5. If placed in a super above a strong colony with drones confined therein by queen-excluder and division-board, can one expect pure-blood mating of the first rank?

6. What is the difference in size between the Root dovetailed

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bives and those made by the G. B. Lewis Co.? Are they the same dimensions as the Danzenbaker or Langstroth?

7. Is the extreme shallow brood-nest a practical success, say to take two supers for early spring breeding filled with frames, then at harvest time introduce a queen-excluder on No. 1, and raise No. 2 above all the supers filled with sections?

8. Would the bees be likely to mix pollen along with the white clover and other first-class honey if the sections were thus placed between what had been their brood-nest?

9. Where is that man from Canada who said in the American Bee Journal that he could find either a virgin or laying queen in from $2\frac{1}{2}$ to 4 minutes in any colony? He failed to tell us how to do it, and as yet I have failed to see the method explained.

INDIANA.

ANSWERS.—1. Untested queens are understood to have mated and begun laying, but there is no certainty whether they have mated with a pure drone. Of course, if pure drones largely prevail in the neighborhood where the queens are reared, the chances are largely in favor of pure mating; but the purchaser takes the risk himself, whereas he does not run the same risk if he pays the extra price for a tested queen.

2. Standard queens are pure Italians like those that come from Italy, the workers having 3 yellow bands. A red clover queen, whether standard Italian or what-not, is one whose worker progeny work unusually well on red clover.

3. Queens can not be mated in the upper story of a hive either in spring or at any other time. They meet the drones high in the air. Some have succeeded in having them mate in very large tents, where

they could fly much the same as in the open air; but there is probably no authentic account of queens ever having mated in an upper story.

4. No, it isn't worth while for you to fool away time trying it. The queens are likely to disappear, and even if they succeed in mating very early in the season, they are likely to turn out worthless.

5. No, not of the first rank nor of any other rank. As before explained, you can not have mating in such confinement.

6. Dovetailed hives made by different firms are all supposed to be of the same dimensions, having the regular Langstroth frame, $17\frac{1}{2} \times 9\frac{1}{2}$. The Danzenbaker is quite different in dimensions, having shallower frames.

7. Yes, quite a number have successfully used the Heddon hive, which is one of the shallowest, and T. F. Bingham has successfully used one still shallower. But I don't know that any one manipulates in the way you describe.

8. There is more danger of pollen in sections over a shallow brood-chamber, and if brood-combs are placed over sections there is danger that the sections will be darkened by the bees adding to the cappings of the sections bits of comb carried down from the old combs above. Whether this is always the case I don't know.

9. I don't now recall the item to which you refer, so I can't tell you anything about the whereabouts of the man. Sorry you didn't give page. But there are many who will find queens in $2\frac{1}{2}$ to 4 minutes by merely lifting out and looking over the frames. Yet there will be exceptional cases in which a queen may successfully escape detection for a much longer time. One way to make sure of finding a queen is to run the bees through a queen-excluder; of course the queen will be sifted out.

Reports and Experiences

In Sunny (?) California.

I left 30 colonies in Iowa, but did not leave my interest in the bee-business. So my son and I have engaged for the season with parties that own nearly 1,000 colonies.

They have been working about 12 men, making up hives, supers, foundation etc., wiring frames and putting in foundation, and at the same time caring for 4 apiaries, and also taking about 10 tons of orange honey of fine quality. They are rapidly completing arrangements to begin moving to the hills some 40 miles out (of which I may send an account later). I had just gotten queen-rearing well under way when I was taken sick, and confined to the house over a week. I am not able to resume work yet, but hope to be in a few days.

We are somewhat disappointed in sunny California. It is surely the "land of flowers," but not all sunshine.

They say this has been an unusual season, more continued cool and cold than common. We hived a number of swarms April 3, and then came home (about 1 mile), and played snowball, and there was snow till nearly noon the next day.

A few days have been warm, and they promise us plenty of that kind in July and August, more especially out in the hills.

T. S. HURLEY.

Los Angeles, Cal., May 14.

Experience with Bees.

Please do not stop the American Bee Journal. I can not do without it. Nearly every number is worth its yearly subscription price.

The spring here has been very backward, cold and chilly nearly every day. Last Saturday nearly one inch of snow fell, and Monday night it froze $\frac{1}{2}$ -inch ice on the water in my bee-waterring trough.

Here is a little kink. If I had known it last fall it would have been worth quite a few dollars to me. It is as follows: If you use a 10-frame hive, like I do, and use an oilcloth on top of the frames, remove the oilcloth when you put the bees into the cellar. I had a few that had clustered on one side in the hive, and they just starved with lots of fine clover honey in the opposite side of the hive. The frames the bees died on were as dry as bark, not a drop of honey in them. If I had known that last fall, I would have been that much ahead.

I send a photograph of my apiary, which was taken early in the spring just as the hives were put out. Right among them you will find me examining the bees. If short of

stores, in my left hand I have a comb with a little honey in for them, and in my right hand a 20th Century bee-smoker. The hives are all my own make, with standard Langstroth frames. The hive right in front of me and the second to the left are hives that I bought last fall, containing both straight and crooked combs which are to be transferred as soon as fruit-bloom commences.

As you look at the picture you will see 3 hives at the extreme right, which are my father's. Behind me is a sugar-maple which is an excellent place for the bees to settle on when they swarm, and I will tell you I have spent a good many happy hours in the shade of that maple tree, reading the "Old Reliable"

are fastened on with a VanDeusen hive-clamp. The cover is 18 inches wide, made of three 6-inch boards, and covered with felt roofing, first painted with a kind of cement 2 coats, and then 2 coats of white house-paint, which I think makes a good cover.

And then that spring I increased to 12 colonies, and got 500 pounds of extracted honey (the bees built all the combs), and of course transferred those 3 colonies into standard hives. Hives Nos. 1 and 2 contain 3-banded Italians and the rest common black bees. I expect to Italianize them all this summer. That extracting super under hive No. 2 is for feeding purposes. Also, as you



APIARY OF CHAS. O. BERGSTRAND.

and watching the little, industrious bees. About a rod back of that maple is a strawberry patch and a small fruit-garden with such fruit as gooseberries, raspberries, currants and blackberries. The woods in the distance are mostly basswood.

Well, perhaps I should say something about how I started with bees. About 2 years ago I got a bee-paper, and, of course, bought 1 colony in the fall. It wintered all right, and came out in fine condition. So I increased to 3 that summer by natural swarming. As I did not know much about bees then, I hived them in box-hives, and the result was lots of crooked combs. So I cellarred 3 colonies the fall of 1904. I soon subscribed for 4 bee-papers, and got nearly all the standard books on bee-culture.

That winter was the time I gained my knowledge about bees. The following spring I set to work making standard Langstroth 10-frame hives, and put a starter in every frame. The hive-bottoms are removable, and

will see, there is a good-sized lake in the distant.

CHAS. O. BERGSTRAND.

Lykens, Wis., May 9.

Prevention of Swarming.

Appreciation and thanks for what Mr. Philbrook says on page 383; but putting the queen below and the brood above with a queen-excluder between the two hives will not prevent swarming. In my locality, fully 95 percent of the colonies so treated will swarm; that is, of such colonies as would have swarmed if not treated in this way. That plan was described in print many years ago. I tried it in a large way and could not see that it had any effect whatever in preventing, or even checking, swarming, provided the colonies treated had already contracted the swarming fever. If they have not started cells, that plan will always check, and many times prevent, swarming. But it can not be

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depended upon. If a colony has started cells and they are destroyed at the time the brood is put above, the bees will at once construct new ones, and then swarm as soon, or before, the first one is sealed. That is the way the plan or method works here.

By the method I have discovered there has never been a failure in 3 years with hundreds of colonies, many of which had sealed cells at the time they were treated, and by my plan there is no cutting of cells, searching for queens, or jumping hives around. The frames are not removed. I have not been surprised that many do not believe what I say in regard to the matter, but it has been a great surprise that so many wonder what my object is and what I want.

Let me try to make my position in this matter clear: I have been permitted to make a discovery which, becoming known to the bee-keeping world, will revolutionize our pursuit, for it would most surely greatly increase the amount of honey produced, not only in this country, but all over the civilized world where bees are kept. This method will work in any part of the world that bees can, for its wonderful success is due to an instinct of bees that is infallible. This method would not only increase the amount of our product—because more honey with much less work can be produced when practising it compared with any other method now known, but also because it would greatly increase the number of bees kept all over the world. For thousands, who now keep but a few colonies because they can not give them the necessary attention during the swarming season, would, if they knew how easily it could be controlled, largely increase their number. Thousands of others, who now only make a side-issue of bee-keeping, would decide to devote their whole time to our pursuit, and become specialists, and what specialists there now are would be able to keep more bees with less work.

Now, in my opinion there is more than enough honey produced by methods now known to supply all the demand, and any method or means given to the bee-keeping world that will in time—and a very short time, too—double, perhaps more than treble, the amount of our product, might, and I think would, prove a curse instead of a benefit. Of course, if only a thousand or so knew about it, there is no question but that it would be a great benefit and advantage to them. And, of course, it is, and will be, a great benefit to me until it becomes known. I think, though, that in a few years the whole world will know about it, for others are getting close to it. Some have stumbled right over it without knowing it. But it may be many years before others discover it, and, anyway, if it is given to the world by others, the responsibility will not be mine.

I am looking forward with much interest to Mr. Philbrook's description of his queen-finding device. Perhaps it is the same as mine. If it is, I shall feel like taking off my hat to him for reading between the lines, as it were. By what he writes, I infer that he is an amateur with but a few years' experience, with a limited number of colonies.

Southern Minnesota. C. DAVENPORT.

[It seems to us Mr. Davenport makes a very queer argument, or gives a very poor excuse for not telling just how he prevents swarming. He might as well try to kill off all the bee-papers, and burn up all the bee-books, for by their existence they may cause more people to keep bees. Better try to spread foul brood so there will be fewer bee-keepers! Did you ever hear such selfish talk?]

A certain Prof. Holden is going up and down the corn States, showing farmers how they can grow 60 bushels of corn per acre instead of 30. Of course, Mr. Davenport would kill off such men as Prof. Holden, as there might be too much corn produced! What's the use of letting so many farmers grow wheat, or try to increase the amount produced per acre? Better never to have known of the reaper, the self-binder and other improvements. Yes, let's go back to the sickle, the box-hive, and also do without comb foundation! Mr. Davenport is taking the wrong stand on this matter, and will see it some day.—Editor.]

A Rattler Among the Bee-Hives

Yesterday, while doing some work with the bees, I suddenly came upon a rattlesnake at close quarters. I had just finished looking over a hive and started for the next in the row when I caught sight of him coming out between 2 hives. He evidently saw me at the

same time, and doubled back, and crawled under a hive. My hives were on stands raised a little from the ground by little stones, and there was room for him to crawl under. With a pair of pliers I fixed a stout hook to the end of a lath, and with a "big stick" close at hand commenced fishing for my visitor. I could get the hook over him, but he managed to squirm away so that I could not pull him out. After working about half an hour I gave him up and concluded I would have to move the hive to get at him.

The bees were very much stirred up by the racket and poured out and covered me all over and followed the stick under the hive, and evidently were making it as hot for the snake as they were for me, for he would leave the corner where he was coiled up, and ran around as though it was a very uncomfortable place. My hives are 2-story and quite heavy, and I had to go to the honey-house to get a tool to pry them apart, and when I did get them off of the bottom-board and turned over—there was no snake there—I was about as much surprised as when I first saw him.

The apiary is at the foot of a hill and the sage-brush comes down to within a few feet of the hives, and I hunted the ground over thoroughly, but no snake could I find, and I had about concluded that I had lost him. Still, I was not satisfied, and didn't like the thought that I might come upon him at any time when he was coiled, and might strike me in an instant. So I went to probing under the other hives with the hook, and after feeling under 3 or 4, I had the pleasure of getting hold of him again; and worrying him a little more he crawled out at the opposite side, and I got in my work with the "big stick." He measured 8 feet and 4 inches, and had 9 rattles. I kill one or more every summer, and have killed larger ones, but this was the first one I ever found among the beehives.

F. C. WIGGINS.

San Diego, Calif., April 30.

CONVENTION NOTICES.

National in Texas.—The National Bee-Keepers' Association will hold its annual convention Nov. 8, 9 and 10, 1906, in San Antonio, Texas. These dates occur at a time when the Texas Fair is in progress, and low rates will be in force, locally, for several hundreds of miles out of San Antonio, and, at the same time, there will be home-seekers' rates available from other parts of the country.

Flint, Mich. W. Z. HUTCHINSON, Sec.

Missouri.—The Saline County Bee-Keepers' Association will hold its midsummer convention on the lawns of the Honeysuckle Apiary, in Malta Bend, Mo., July 14, 1906.

E. G. GUTHREY, Vice-Pres.

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Bee-Keeper's Guide, or Manual of the Apiary, by Prof. A. J. Cook, of Pomona College, California. This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 544 pages. 295 illustrations. Bound in cloth. 19th thousand. Price, \$1.20.

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Honey as a Health Food.—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey the more honey they will buy. Prices: Sample copy for 2-cent stamp; 50 copies for 70 cents; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; or 1000 for \$7.50. Your business card printed free at the bottom of the front page on all orders for 100 or more copies.

Forty Years Among the Bees, by Dr. C. C. Miller.—This book contains 328 pages, is bound in handsome cloth, with gold letters and design; it is printed on best book-paper, and illustrated with 112 beautiful original half-tone pictures, taken by Dr. Miller himself. It is unique in this regard. The first few pages are devoted to an interesting biographical sketch of Dr. Miller, telling how he happened to get into bee-keeping. About 20 years ago he wrote a small book, called "A Year Among the Bees," but that little work has been out of print for a number of years. While some of the matter used in the former book is found in the new one, it all reads like a good new story of successful bee-keeping by one of the masters, and shows in minutest detail just how Dr. Miller does things with bees. Price, \$1.00.

The Honey-Money Stories.—A 64-page-and-cover booklet, 5 1/2 x 8 1/2 inches in size, printed on best quality paper. Many short, bright stories interspersed with facts and interesting items about honey and its use. The manufactured comb honey misrepresentation is contradicted in two items, each occupying a full page, but in different parts of the booklet. It has in all 33 fine illustrations, nearly all of them being of apiaries or aparian scenes. It also contains 3 bee-songs, namely, "The Hum of the Bees in the Apple-Tree Bloom," "Buckwheat Cakes and Honey," and "The Bee-Keepers' Lullaby." This booklet should be placed in the hands of everybody not familiar with the food-value of honey, for its main object is to interest people in honey as a daily table article. Price, 25 cents, or 3 copies for 50 cents.

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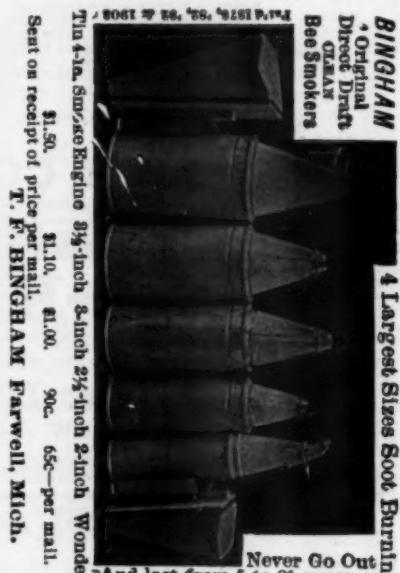
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OTISVILLE, Pa., Jan. 18, 1904.
Dear Sir:—I have tried almost everything in the smoker line; 3 in the last 3 years. In short if I want any more smokers your new style is good enough for me. I thank the editor of Review for what he said of it. Those remarks induced me to get mine. FRED FODNER.
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Honey and Beeswax

CHICAGO, June 22.—The demand for honey, both comb and extracted, is slow. Fancy comb brings 15c per pound; No. 1, 14c; off grades, 10@12c. Extracted, white, 6@7c; amber, 5@6c. Beeswax, 30c. R. A. BURNETT & CO.

TOLEDO, Feb. 19.—The market for comb honey has been better for the past two weeks than at any time during the past season. Prices are firm on account of the scarcity. We are getting 15@16c for fancy white clover; 14@15c for No. 1, and 13@14c for amber. Buckwheat, 13c. Extracted honey is in good demand at following prices: White clover in barrels brings 6@7c; amber, 5@5@6c; in cans every grade from 1@14c higher. Beeswax is firm and in good demand at 28 and 30c.

The above are our selling prices, not what we pay. GRIGGS BROS.

INDIANAPOLIS, July 6.—Fancy white clover comb brings 16c; No. 1, 14c; demand exceeds the supply; fancy white western comb brings 14@15c; amber grades in poor demand at 12c. Best grade of extracted honey brings 8@9c in 60-pound cans; amber, 6c. Good average beeswax sells here for \$33 per pounds.

WALTER S. PODER.

PHILADELPHIA, June 20.—There is no new honey arriving in this market as yet, and so few lots of old honey that we cannot establish any price. Some little lots of Southern extracted honey have arrived in barrels. We quote: New Southern extracted, light amber, 6@7c; amber, 6c. Beeswax selling freely at 28c.

We are producers of honey and do not handle on commission. WM. A. SELSER.

NEW YORK, May 8.—There is still some demand for comb honey, mostly for fancy grades, which are selling at from 14@15c per pound; off grades in no demand and prices are irregular, ranging from 8@12c, according to quality; sufficient supply to meet demand. Extracted is in fair demand, mostly from California, of which there seems to be abundant supply of all grades. We quote: White, 5@6c; light amber, 6c; dark, 5@5@6c, according to quality and quantity. Beeswax scarce and firm at 28@30c.

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...OHIO...

Office and Salesrooms, 2146-48 Central Ave. Warehouses, Freeman and Central Aves.

CINCINNATI, June 15.—The demand for extracted honey has brightened up within the past 30 days. However, there is so much of last season's crop still unsold, which tends to hold down the price. There is no material change in prices since our last quotation. We quote amber in barrels at 5@6@7c. No new white clover extracted honey on the market as yet. New crop of comb honey finds ready sale at 14@15@6c. Choice yellow beeswax, 30c, delivered here.

THE FRED W. MUTH CO.

DENVER, Feb. 5.—Owing to the mild weather the demand for honey has not been as good as usual at this time of year. We are quoting strictly No. 1 white alfalfa comb honey at \$3.35 to \$3.75 per case of 24 sections; off grade and light amber at \$3 to \$3.30. White extracted alfalfa in 60-pound cans, 7@8@8@9c; light amber, 6@7@8c. Beeswax, 24c for clean yellow.

THE COLO. HONEY-PRODUCERS' ASSN.

KANSAS CITY, July 5.—The honey market here is almost bare and there is very little new stock coming to market. On account of the poor wintering of the bees, very little honey has been gathered. The market for the best white honey in 24-section cases is \$3.25@3.40 per case; amber and other grades are 25@50c per case less. There is no new extracted honey on the market, but a little old is selling at 5@6c, but scarcely any demand. We look for a good demand later.

C. C. CLERMONS & CO.

CINCINNATI, March 7.—The demand for comb honey is slow, prices obtained are the same. Stock on hand seems to be sufficient to supply the wants. Quote fancy white, 14@16c. Amber extracted in barrels, 5@6@7c; in cans, 6c more; fancy white clover in 60-lb. cans, 7@8@8@9c; Southern, equal to white clover in color, from 6@7c. Bright yellow beeswax, 30c.

C. H. W. WEBER.

 **Wanted**

To sell lot of 300 empty 60-lb. capacity Honey-Cans. All in one lot, or less quantities. Cans are in first-class condition.

We are also in the market for Fancy Comb and Extracted Honey. Correspondence solicited

Michigan White Clover Honey Co.

AGENCIES:

DETROIT, MICH.

35 So. Delaware Street, Indianapolis, Ind.
150 E. Jefferson Street, Louisville, Ky.
643 Broadway S.E., Cleveland, Ohio.

21A13t Please mention the Bee Journal

65c for 12 Names For names and P. O. of 12 farmers and 15c-stamps taken—we will send for 2 yrs. The Farmer's Call—rec. sub. price 40c a year. F. C. is a wky. 25 years old, 1,300 pages a year. Sample free.

FARMER'S CALL, Quincy, Ill.

HONEY AND BEESWAX

When consigning, buying or selling, consult

R. A. BURNETT & CO.

199 SOUTH WATER ST. CHICAGO, ILL.

Yellow Sweet Clover Seed

1 lb., postpaid, 30c; 5 lbs., by express, at purchaser's expense, \$1.00; 100-lb. lots, 15c per lb.

A. L. AMOS.

26A4t Rt. 1. COMSTOCK, NEBR.

FOR SALE

EXTRACTED HONEY

Write for prices. State quantity and kind wanted. Samples free.

BEESWAX—Will pay Spot Cash and full market value all the year. Write us when you have any to dispose of.

HILDRETH & SIEGELKEN
265 & 267 Greenwich Street, NEW YORK, N.Y.
34Atf Please mention the Bee Journal.

WANTED

To hear from parties with their lowest cash price, delivered here, for fancy comb honey in no-drip shipping-cases; also extracted honey. We are cash buyers, and remit on receipt of goods.

THE FRED W. MUTH CO.
27Atf 51 Walnut St., CINCINNATI, OHIO.

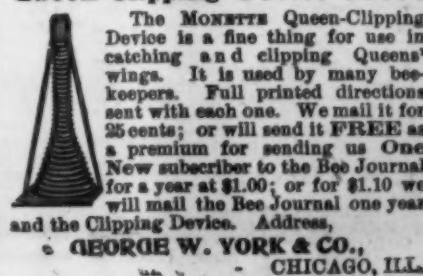
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Let us quote you prices on Sections, Hives, Foundation, etc., as we can save you time and freight. Beeswax Wanted for Cash.

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The MONETTE Queen-Clipping Device is a fine thing for use in catching and clipping Queens' wings. It is used by many bee-keepers. Full printed directions sent with each one. We mail it for 25 cents; or will send it FREE as a premium for sending us One New subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year and the Clipping Device. Address,

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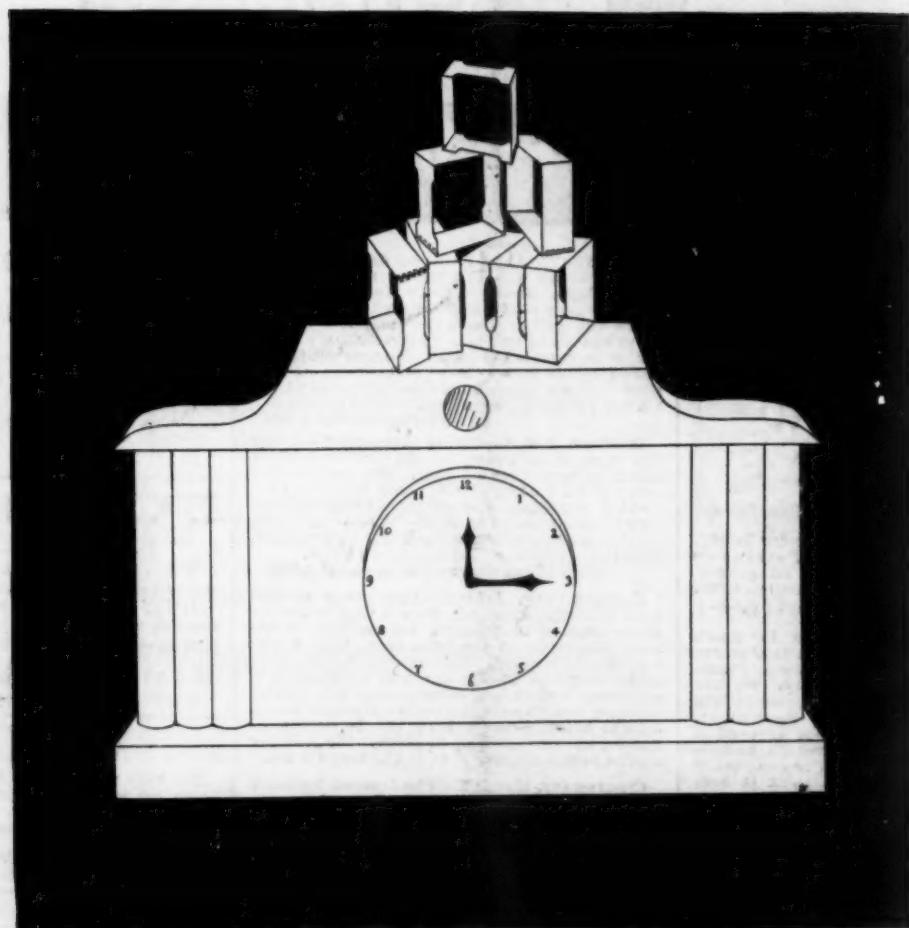
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